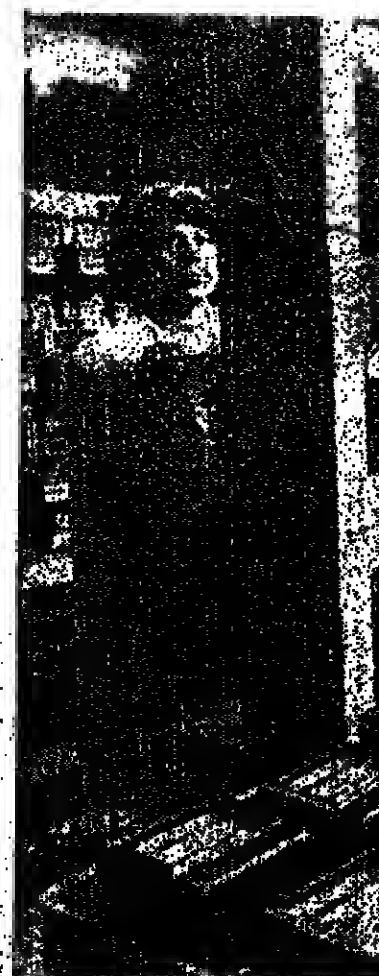


A JOURNEY TO THE WATCHFUL CENTRES

Walking into the computerized tomography service of the Gheorghe Marinescu Hospital in Bucharest, through a bridge flanked by immense, panoramic windows through which I could see the snow gently covering the earth, I found myself in a spaceship. The building is round, the corridors arranged in a circle, the rooms as a honeycomb, the light is filtered by walls with glass scuttles like microscope lenses. The greenhouse, conditioned air, kept at a temperature of 18-23°C, is fit for growing imperial red cyclamens in pots even during freakish winter.

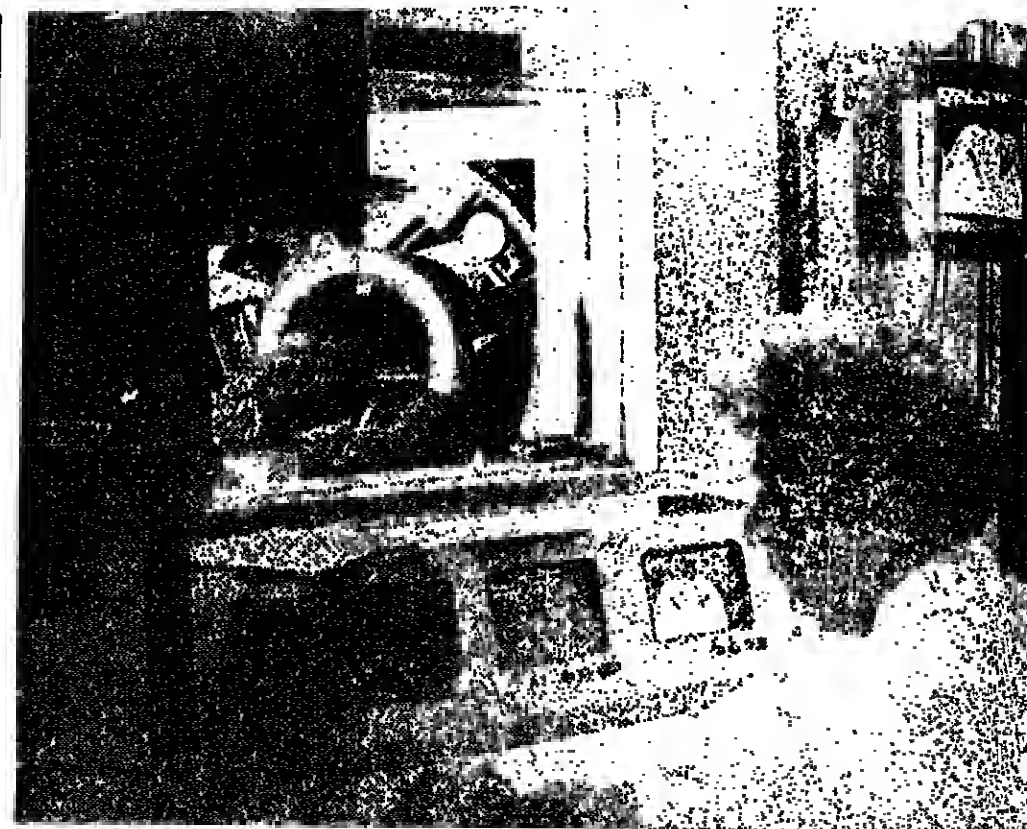
this week's reportage

I had the sensation that I was in a fully automated plant, supervised by a few specialists led by doctor Nicolae Simionescu. I therefore passed through the technical compartment with the high frequency generators, I took in the complete cooling circuits in a complex arrangement, the parts covered by the computers with thousands of transistorized boards and magic lights, and discovered the room where video recordings are evaluated, containing the floppy discs where the memory of the investigations is stored. I stopped briefly in front of the console where the discs are examined — the film arrives where the physician can rerun a special programme of in-depth investigations — I looked into the oncological radiotherapy planning department, and I passed in the examination compartment, where the direct dialogue between the physician and the patient takes place, then in the point of contact with the patient takes place, that is, in the outpost of the most thorough explorations of the human brain, conducted on an artificial brain whilst recapitulating our anatomical universe.



only difference is that here and now we shall embark upon a journey to the microcosm of the human brain. A fascinating black-and-white trip in 2,821 number values which can be assigned to gray steps, through arid landscapes or arid areas covered by the 40 billion cells making up the gray matter, to the either watchful or dormant centre of existence, to the epicentre of the future vision of conscience, to the heart of reason.

Doctor Nicolae Simionescu, a specialist in neuroradiology, member of the International Society of Neuroradiology based in Brussels, heads this expedition remarking the brain's matrix digital image from the control panel, through a beam of x-rays, with the help of 256 over sensitive detectors. The image, reconstituted on monitors is composed of several transverse sections of the brain, controlled by "special resolution" and by a circular analysis of the head skull. Thus, the tomograph helps us complete not only a journey around the head, similar to those experienced whilst reading fiction, but also a deep-going one, inside the skull, where old and conventional radiograms and conventional images, already considered by experts as "horror" samples.



A routine check takes nine axial sections but a careful doctor, sensitive to grey hues, to changes of contour, can order the computer to produce microscope images, details, as if following the procedure of a work of art study, erasing in the the cerebral hemisphere with delicate manoeuvres, reaching the most intimate zones of the superiorly organized matter, within the most sophisticated logical and mathematical structures which control our culture actively or adaptability to environment. Beyond the instrument, beyond the panel stuffed with keys and monitors operating in "brass daylight" providing thus the darkness of the x-ray apparatus and accommodation of the eye with the image, lies the patient, exposed to all kinds of electronic sensors surrounding his head like a belt of beams rotating at an angle of 300 degrees and recording the activity of his brain in conditions of comfort and quiet. The radiations focusing on the patient who is secured from the doctor by a Plexiglas screen, do not exceed the amount of roentgen units usually needed for two ordinary radiograms. Besides, they do not involve further, more complicated and therefore more dangerous operations required by conventional investigations with beams of x-rays or noxious contrast substances.

It so happens that the patient now subject to the computer fire of beams and detectors has suffered from serious internal

lesions, cerebral hemorrhage and coma. Investigations are being stepped up because in such cases there is not much time left and an accurate diagnosis has to be established for an emergency operation.

Danil Nitu Simionescu efficiently handles the equipment, reconstrued, revealing the image of the exposed brain through multi-phase reconstructions at other levels, at distances of just a few millimetres, advancing step by step toward the key spots. The slices are rapidly scanned and we have the feeling we are entering the clouds. The first pathological signs appear, dark, diffuse spots, the images dilate and are zoomed on the screen. Then the doctor leaves the general plans and penetrates well defined details divided in small kernels, until the proportions of the cerebral vascular accident are precisely mapped on the monitor. All data are immediately filed and stored together with the film diagnosis of the neuroradiologist and the clear definition of the area to be operated upon. The investigation lasts three minutes. The patient is freed from the detector belt and quickly taken to the operating room, flanking at the short that exactly reproduces the lesions and allowing parts of the brain, the surgeons have precisely not only the diagnosis but also the dimensions of the hemorrhage and all physiological consequences coming from it. Thus, in a few minutes, a man wounded during a traffic accident in a Bucharest street is in the hands of a physician, under the light of the operating block, a few earlier and with an added chance of survival.

All the control console — motion desk, doctor Nicolae Simionescu is personally supervised by a patient supervision team and an equipment supervision team: on the one hand medical assistants Ion Chel and Marica Gabor, on the other hand, engineers Alexandru Ciucu and Elena Nicolae. Before Nicolae Simionescu left at the end of December 1, 1988, the computerized tomography as such has been entered. It will be followed by computed tomography in 20,001. The patient, an eleven-year-old child with extremely dilated and permeable cerebral ventricles, will undergo an operation in future. It is perhaps the result of a cerebral accident.

Images on the monitor screen continuously change, but very significant with subtle details for any specialist. Here for a physician only the cerebral physiognomy is interesting during the investigation, for a reporter the original experience is important of a journey through the hottest area of the human body, the place where our image of the world we live in is built and rebuilt. A world which can also build destruction apparatus but also sophisticated equipment of saving the secrets of the brain. This is what made us human beings!

ADRIAN DOBOTARIU

150 YEARS OF ROMANIAN PSYCHIATRY

A jubilee scientific session entitled "150 Years of Romanian Psychiatry" was held in Bucharest, under the aegis of the Union of Medical Sciences Societies, between December 8 and 10. Over 300 participants from every corner of the country (psychiatrists, neurologists, endocrinologists, psychologists, etc.) presented scientific papers and reports, evoking the road covered by the national school of psychiatry between December 1838 and December 1988. One century and a half ago Bucharest saw the rise of the first psychiatric establishment called Mărcuța. The history of this medical discipline occupies also for the emergence of similar hospitals, such as that of Sibiu (founded in 1863), those of Iasi, Tîrgu Mures, Cluj and Craiova, all of them founded in the 19th century.

Evoked were also the outstanding personalities of a whole series of Romanian psychiatrists of world and European fame, including Alexandru Sălușan, Alexandru Brătescu, Constantin Trebolle, Gheorghe Marinescu, etc.

Lectures on psychiatric therapy and research, an educational and publications specific to this medical discipline were delivered by ample exhibitions on the contribution of the contemporary Romanian doctors to upgrading the medical institutions and the profound human concern for the treatment of mental diseases manifested not only as a profession, but also as a social duty.

POWER CONTROL

The Enterprises for Electrical Measuring Instruments in Timisoara has designed and manufactured a sophisticated system for controlling electricity consumption in a group of industrial consumers of a group of such units. This system is designed to be installed in a central place, from where the power consumption of each

group can be monitored and controlled. The system is designed to be installed in a central place, from where the power consumption of each

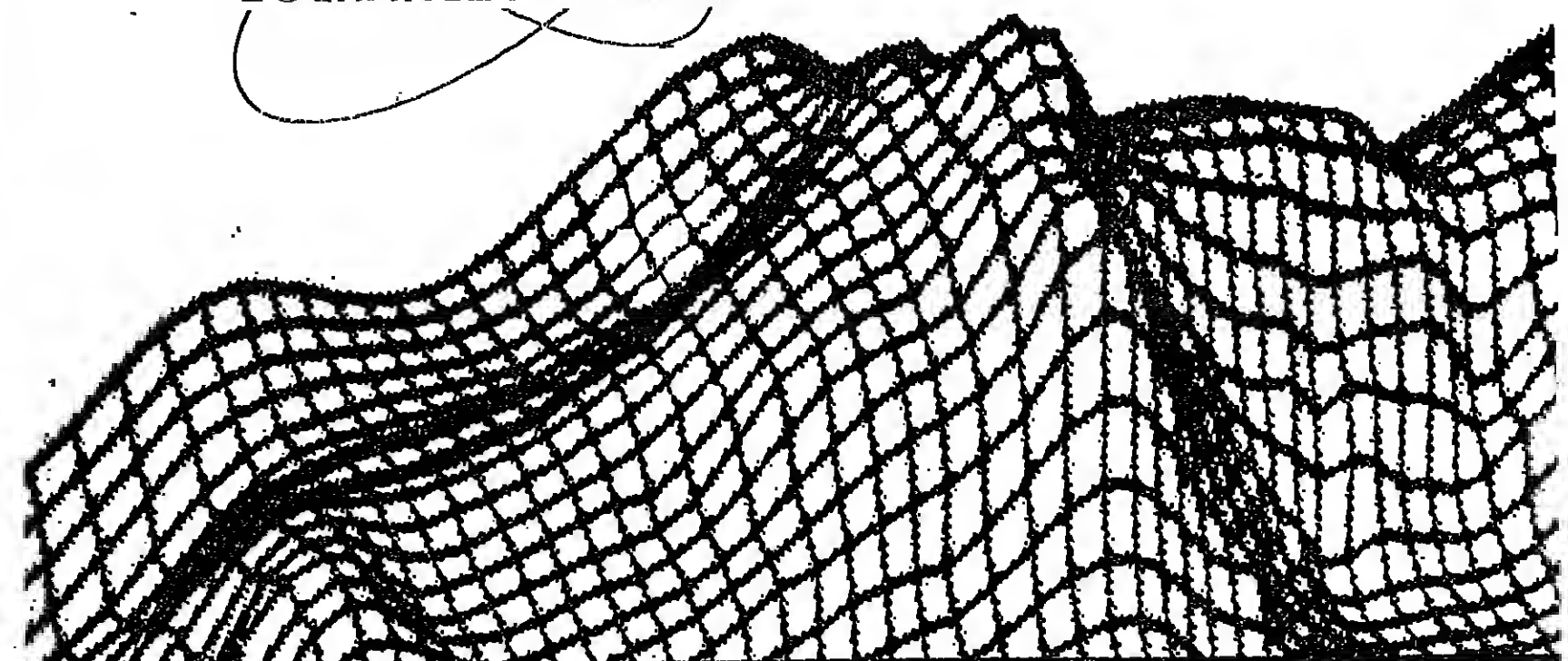
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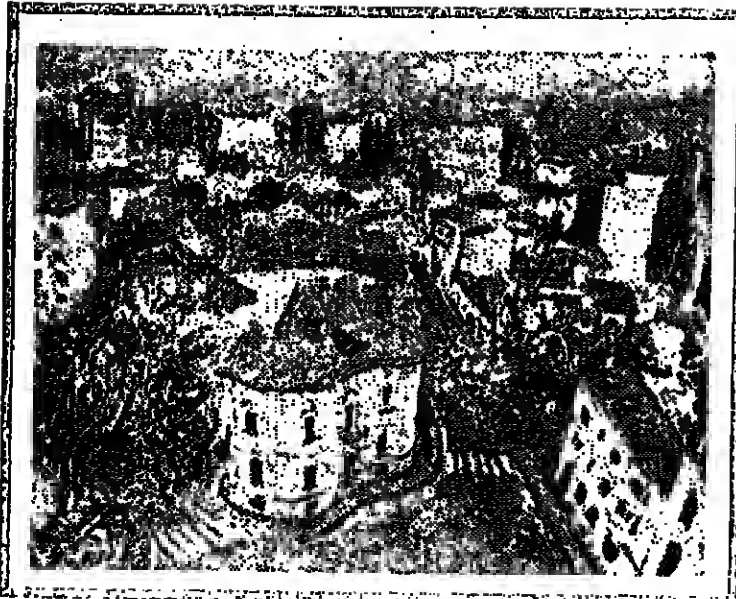
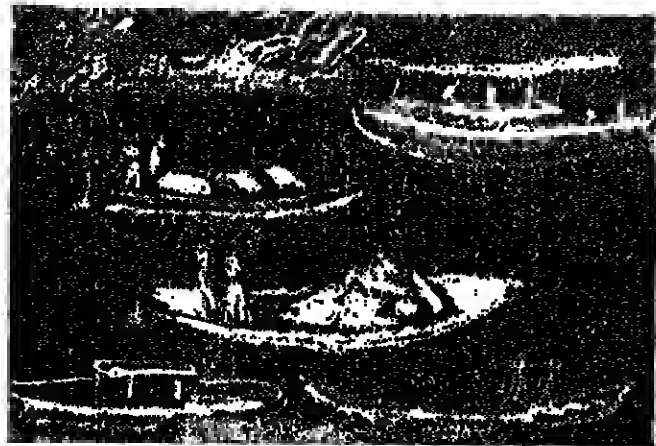


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The identity between work of art and man was seldom affirmed as in the case of Dragoș Morărescu (b. 1924, in Focșani, a graduate of the Fine Arts Faculty and of the Faculty of Architecture). Continuously experimenting intensely, exploring the artistic phenomenon, he has never had enough time to filter and explain his illustrating projection upon others. He always seems to be caught in the act of conveying the feelings aroused by nature to the canvas or paper. He is a complex artist, whose originality in art is amazing as he does not belong to any tendency in the context of contemporary Romanian graphic art, during over 40 years of activity, he has asserted himself as an architect, decorator, sculptor, engraver and illustrator, poet and art history researcher.

He is an artist, animated by the spirit of creating, discovering and inventing, of controlling his experiences in metaphors of reality taken from known places, to the country (scenography, images from Bucharest, Cluj-Napoca, Sibiu, Focșani, Sinaia, Ucea de Jos) or from various travels (Vienna, Stuttgart, Viena, Venice). In general his paintings are true to life, without emptying nature, following only its essence, sense, charm, high artistic expression, being in this respect, laconic, vivid, colorful, with their whole exuberance and maturity. Certain tendencies have a calm, lyrical atmosphere, others are dramatized by their low or striking hues.

Stimulated by an insatiable desire, Dragoș Morărescu perceives the outside world with extraordinary vehemence, in each level, flower, strand or portrait, to discover life, which he represents by distorting its shapes, re-building it, or its appearance. Under his eyes, the red becomes blue, the green — spring into green, the yellow turns into sun rays. Morărescu participates in the movement of clouds, of fields, of waters; nature is a repertoire of sad or exuberant attractions. Thus his own theory on painting combines and creates a long series of self-standing cycles: "Antichities and Mythologies", "Landscapes" and "Romanian Themes". "The Metamorphosis of Forms", "Aspects of Yesterday and Today".

A complex and meticulous poetical spirit, compelling you to mentally reconstruct an image, characterizes Dragoș Morărescu's work in general.

SIREA DRAG

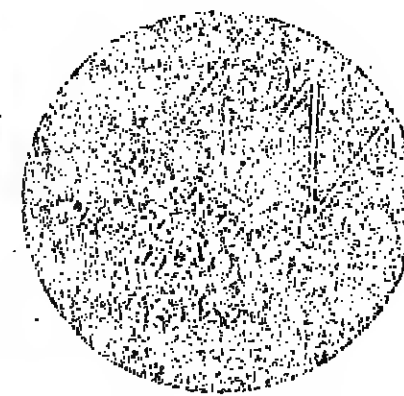


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ROMANIAN NEWS



UNDER DISCUSSION — AGRICULTURAL QUESTIONS

NICOLAE CEAUȘESCU'S SPEECH

AT THE ENLARGED PLENUM OF THE NATIONAL COUNCIL OF AGRICULTURE, FOOD INDUSTRY, SYLVICULTURE AND WATER MANAGEMENT



In his speech made on Friday, December 18, at the Enlarged Plenum of the National Council of Agriculture, Food Industry, Sylviculture and Water Management, President Nicolae Ceaușescu stressed that the plenum made a thorough analysis of the results scored this year and the objectives of the plan and programmes for 1959, with a view to increasing the farm output, the production of the food industry, sylviculture and water management, so as to make their contribution to the general development of the country, to improve the entire people's material and cultural welfare and to carry through unhesitatingly the Party's Programme of building the materially developed socialist society and Romania's advancing towards communism.

The broad debates which lasted two days, the critical and self-critical analysis of the activity carried out so far, the proposals forwarded and put to the vote by everyone — the fact that 200 participants took the floor during the proceedings of the National Council of Agriculture — prevails both the broad democratic character of the discussions and the seriousness with which problems relating to these sectors of activity are raised.

On the basis of these broad debates all conclusions and lessons will have to be drawn with a view to improving the whole activity and fulfilling tasks of great importance for the home-land's overall development, for the expansion of agriculture and the implementation of the new agrarian revolution.

In the years of socialism, alongside the general development of the production forces, of industry and of the other branches of activity, agriculture — in fact the second basic branch of our economy — has undergone a powerful development, too.

Especially after the Ninth Party Congress a better understanding has been achieved, the truth has been re-established concerning the important role developing on agriculture in the development of the Romanian economy. Industry has to play the decisive role in the development of the national economy, however, without neglecting or underestimating the role of agriculture — without which one cannot speak about a balanced development of the national economy.

It is necessary for us to ensure a uniform development of industry and agriculture — as a matter of fact of all branches

and sectors of activity. Any shortcoming in one sector or another, but mostly in these two decisive sectors, will bear negatively on the whole development.

It is necessary for us permanently to start from the fact that industrialization based on the latest gains of science cannot be achieved unless a continuous progress is ensured for agriculture — as one of the main branches of the Romanian economy. The same as we must underline that for progress and development of agriculture is not possible without a strong industry.

To this we should add permanently the important role played by science, education and culture, as fundamental factors of the homeland's thriving and of socialist construction and, likewise, the necessity of involving our entire activity in all fields in the latest gains of science and technology.

Life — the supreme judge of any activity — has fully proved the righteousness of the general policy pursued by our party in applying the objective laws, the principles of scientific socialism to the realities and conditions specific of our homeland. Further on, President Nicolae Ceaușescu said that the righteousness was proved of

the thesis formulated as early as the Ninth Congress that socialism is achieved in conditions varying from one country to another, from one stage to another, and that the communist party, as the leading political force, has the historic mission of ensuring the understanding of these laws but also of the realities existing in our homeland, as well as their application in the best possible conditions. Our achievements scored in the general development — victories in agriculture too — prove the justness of this policy and of this path.

The state and cooperative socialist agriculture in the decisive factor in obtaining good crops in all fields, in increasing the farm output permanently, and carrying through the new agrarian revolution. Our achievements recorded in agriculture by the years of socialism, especially after the Ninth Congress demonstrate that only the large state and cooperative socialist ownership allows us to produce a modern, advanced agriculture able to fully meet the needs of our people, to ensure our welfare and the growth of agriculture's contribution to Romania's general progress.

The programmatic theses and the conclusions of the Great

democratic forum of the end of November must be for the working people of the village, for the whole agriculture the basic guidelines for the improvement and better organization of the entire performance, for raising agriculture on a constantly higher level. Meeting the requirements of the new agrarian revolution presupposes an increasingly better crop, but also a higher material and cultural living standard, a closer level between the conditions of work and life in villages and those in towns and the creation of a united society of working people.

Showing that we are at the end of the third year of the 1956-1958 quinquennium, President Nicolae Ceaușescu said that in general we have good results, although below the plan.

As far as agriculture is concerned, a series of good results have been obtained in increasing the farm output. This year, therefore, the third in a row, we obtained a cereal crop exceeding 30 million tons. Over 250 state and cooperative units recorded record crops of over 8,000 kg of wheat and barley and of over 20,000 kg of corn per hectare. Large crops

(cont. on p. 3)

NICOLAE CEAUȘESCU MEETS WITH YASSER ARAFAT THE PALESTINIAN LEADER PREFERS COMMUNISM

YASSER ARAFAT, leader of the Palestinian Liberation Front, met with President Nicolae Ceaușescu in Bucharest. Arafat expressed his admiration for the Romanian people's achievements in building socialism and his preference for communism.

AN INTERVIEW GRANTED BY NICOLAE CEAUȘESCU

President Nicolae Ceaușescu granted an interview to a foreign press delegation, discussing the current situation in Romania and the progress of the socialist revolution.

On December 7, President Nicolae Ceausescu granted an interview to Nicholas Rathwell, special envoy of The Australian daily. We present you the main ideas of the interview which has been just released.

Referring to Romania's main theme concerns, President Nicolae Ceausescu said: "Only a few days ago a survey of Romania's development was made by one of the most advanced bodies. We observed as remarkable achievements in the development of the forces of production, in industry, agriculture, science, education, culture — and with this as a basis, in the improvement of the people's material and spiritual living standards."

Romanian industry, for instance, produces over 120 times as much as in 1945, and agriculture eight times as much. We have created a modern industry on the basis of the most advanced advances in technology and science. Romanian industry manufactures machines and equipment for virtually all domains that are comparable by international standards.

With this as a basis we have planned to lay stress on intensive development, on improving the quality and performance of production in keeping with the latest gains of science. We wish that Romanian industry be ahead of the world's best achievements, hence our emphasis on scientific research and development activities, on putting to production the latest achievements in these fields. It is obvious that this is aimed at the general development, a higher standard of civilization and well-being for all people, and of the same time urban international cooperation. In this context, I repeat, we would like our relations with Australia to be an important factor in future.

Concomitantly with the general development of the forces of production we have implemented a vast construction program of housing, as well as production, health, culture and other projects. As a matter of fact, any visitor of Romania can see that our towns look almost new. We had to do it because in the past housing was poor and could hardly meet modern requirements. At the same time, the urban population has increased tremendously. This is the explanation of the fact that today roughly 80 per cent of the urban population lives in new homes. We intend to virtually solve the housing problem in towns until 1985.

At the meantime we have also been concerned with raising the living standard in villages. As agriculture and some industrial activities were developed, measures were taken to provide general social facilities which include schooling, health care and other basic public necessities. We have implemented many of these programs, but hardly raising the scope of urban development. That is why we intend to pay greater attention in the period ahead to the resolution of those problems in rural settlements as well, with a view to raising the living standard of the population of all citizens. We feel from the fact that, eventually, the standard of living in towns and villages should differ as

little as possible and that, as far as such general needs as schooling, health care, culture, economic questions are concerned, the conditions in villages should virtually be the same as those in towns. This will take some more time but we think that this is the only just way to give all people civilized and better living conditions from all points of view.

In this framework, we plan to build homes for the people working in these settlements, for workers, and little by little to make sure that villagers have

Romanian people's development. First of all, we greatly appreciate the people itself, because it is the driving force, the true maker of history, of its life, of modern Romania today. This is why all we achieve is with the nation and for the nation, with the people and for the people.

We think highly of our past of light, but I say again that we wish to learn from its lessons for the sake of our present and future. This makes us work for the continuous strengthening of Romania's independence and sovereignty, for the uninterfered rise in our people's standard of general development, civilization and living.

Next, President Nicolae Ceausescu outlined Romania's

In particular, we attach great importance to the resolution of the Middle East problems. We declare for an international conference, in an attempt to find a solution that should ensure the coexistence of both the Palestinian state and Israel, and lead to the establishment of a peaceful life between the two.

We pay special attention to the problems of the world economy, underdevelopment, the building of a new world economic order. Romania considers that the resolution of underdevelopment is a matter of vital importance for world de-

velopment, of the gains of science, of the development of culture, because no one will ever be able to say perfect solution to the most diverse problems. We must always be taken to improve management forms — which, as a matter of fact, is a regular international process. Undoubtedly, a longer time will pass before such improvements are made — and that is why actually happened in the Soviet Union — which makes this highly important in the life of the respective country.

Europe's economic condition depends on the activity of the country, of each party of the country. I should like to see again point out that we consider economic development, the problems of underdevelopment, in the world and with its development level. At least, that is how Romania worked, works and will work in future as well.

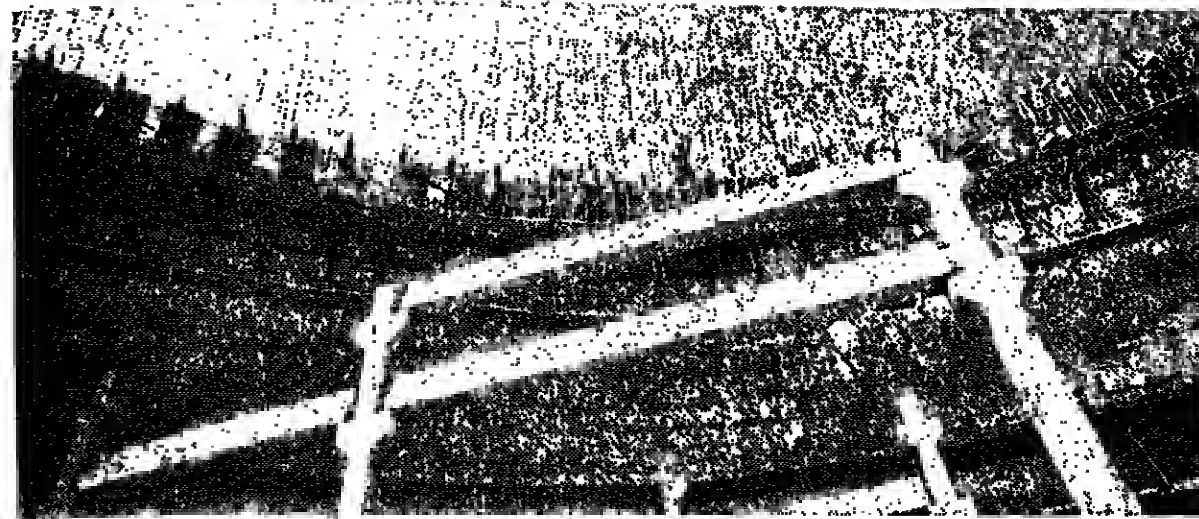
What I mean is that, in any way or another, all measures aimed at improvement play a significant role as long as they provide for the development of the productive forces, and be conditions in place for the further progress of society and contribute to a rise in the general standard of living. In this respect, we believe that the measures taken in the Soviet Union have and will have a great importance for the attainment of the targets of the Soviet Union.

Approaching the Romanian-Australian relations, President Nicolae Ceausescu said: "The official visit paid by Australia this year was a landmark in the relations between our two countries and opened the prospects of growing cooperation in the economy, in science, culture and in international politics."

"The visit, the talks and the understandings we made are still fresh in my memory. As a matter of fact, the economic exchanges between our two countries are twice as large as in 1955, and will be even larger in the future. We are convinced that the visit as well as the subsequent understandings for cooperation in various domains will have a positive effect on the growth of our economic relations."

Referring to the questions of socialist construction in various countries, President Nicolae Ceausescu said: "Romania and the Romanian Communist Party have always taken the view that the development and improvement of relations in one country or another are internal problems that are related to the conditions and realities in the country. Therefore, the current concerns with improvement — or restructuring, as they call it in the Soviet Union — are the problems of the Romanian people, of the Communist Party, of the Soviet Union, to improve and develop socialist society."

In this context, Romania took and took action according to its realities, the requirement for permanently adapting the forms of economic and political organization to the new realities which are a result of the growth of the forces of produc-



ANOTHER 100 GIGACALORIES

The second 100-gigacalorie hot water boiler has recently been put into operation at the Electric and Thermal Plant in Timisoara, the largest project of this quinquennial built in Timis county. The boiler's adjacent installations comprise four ventilating mills which pulverize the coal more efficiently and are simpler than classical hammer mills.

As a result, the new lignite-fueled plant, which is very economical, will become the largest supplier of thermal energy in Timisoara municipality instead of the old hydrocarbon-based plant. The total generated by coal-burning will now increase from 30 per cent to 50 per cent.

The Timisoara Electric and Thermal Plant which, beside the two hot water boilers of 100 gigacalories each will also have three technological steam boilers of 120 t/h each and two power generating units with a total capacity of 200 MW, will eventually integrate cover the power consumption needs of Timis county. (Photo left)

UNIVERSITY SCIENTIFIC AGENDA

A row of scientific events are scheduled for December, organized by higher education establishments.

Thus, in Bucharest, the Polytechnic Institute organizes the seventh Conference of Machine-Tools. The meeting will tackle the problematic of increasing labor productivity and product quality. The Timisoara-based Traian Vula Polytechnic will host a symposium dealing with "Computers and the Automated Control of Processes". A significant contribution to the scientific training of the youth is expected from the Polytechnic Institute in Bucharest, the University of Craiova, as well as of numerous and numerous research institutes.

Mention should be made of another two scientific events covering the field of medicine. The medicine and pharmacy institutes in Iasi organize a session of scientific papers regarding "The Prevention and Control of the Measles Disease" while the similar higher education establishment in Cluj-Napoca will host the symposium entitled "Trophic and Precoital Disorders for Communicable Diseases Contracted in the Prenatal Stage, During Childhood and Adolescence". Universally staff, students, other specialists of all Romanian medical university centers announced their participation in both events.

DOCTORAL DISSERTATIONS

31 doctoral dissertations have been registered at the Chemical Sciences Polytechnic Institute of Iasi.

The doctoral candidates who have finished their activity in the field include engineer Ilie S. Hanganu from Bulgaria, with his work entitled "Contributions to the Rationalization of Solar Devices", coordinated by professor Gheorghe Althaus, D.Sc.

To the same field refers the doctoral dissertation of engineer Ilie S. Hanganu from Bulgaria, with his work entitled "Contributions to the Rationalization of Solar Devices", coordinated by professor Gheorghe Althaus, D.Sc.

Engineer Ven Althaus (of the D.P.R. of Korea) has prepared in Iasi — the only Romanian university center specializing in this field — a dissertation entitled "Thermal and Mechanical Properties of Polymeric Materials Based on Polymerized Vinyl Chloride for Packaging", coordinated by associate professor Gheorghe Althaus, D.Sc.

UNDERWATER FARMS

Researches from the Salmon Research and Production Station (Pulud-Moua) conceived a new model of viala (viala) for the intensive growth of trout. Compared to the old type which floated on water, the new viala showed as cylinders with curved ends, anchored underwater where water temperature favors an accelerated life cycle to trout. Avoiding winter cold and summer heat, these underwater farms will be able to produce 12 months per year.

The accelerated growth of fish production — based on the new technology — will be also determined by the use of anti-growth inhibitors, piscicultural tablets. Elaborated according to a recipe of specialists of this station, the new food is made of animal and vegetal food, completed with further additive and biological activators.



FOR DEEP DRILLING

A new deep drilling equipment designed by specialists of the Scientific Research and Technological Engineering Institute for Oil Equipment in Ploiesti was recently included on the fabrication list of Tirguviste Oil Equipment Enterprise.

The installation was conceived in two variants — with electric and Diesel operation — and can be transported in its trucks, which allows of a more rapid mounting and dismantling than the other installations with a hook load of 200 tons manufactured in Tirguviste. It can drill down to 5,000 m in low temperatures of minus 10 degrees Celsius.

The first lot of the series of new drilling installations will be delivered in October partners. (Photo left)



ANNIVERSARY

The anniversary of the Tirgu Mures university centre headed by professor Dr. Liviu Popoviciu, marked these days ten years since the first quantum and computerized electroencephalograph investigations. In 1961, under the leadership of the Romanian scientist, the first computerized medical mapping was achieved as a world first here, in collaboration with specialists from the territorial computer center in the locality. Studies should be also made of the Tirgu Mures clinic's achievements in long term polyencephalographic investigations and recordings (6 hours) with infrared video monitoring. Thus, computerized electroencephalographic studies, were obtained for the first time in Europe (Photo left).

LASER APPLICATIONS

Carbon dioxide laser was first introduced in the installations of Tirgu Mures in the country for the treatment of wood, leather and for industrial research. Laser was also extended to the textile and garment, leather and various products industries where it simplifies and improves pattern cutting in paper and multi-layers, eliminating a series of operations which required great accuracy.

The author of this laser application is the light engineer in the Polytechnic Institute of Timisoara.

SHIPS UNDER CONSTRUCTION

Currently in an advanced stage of assembly at the Tulcea shipyard are the installations and equipment which are to fit the Micromar, the cargo boat, the first in a series of ships being built by the shipyard. Being equipped with new engines, which will account for a fast speed, the ship is to undertake the first sea trials before the end of this month.

The same shipyard is working on the installation of a new 100-ton tugboat, the first in a series of ships being built by the shipyard. Being equipped with new engines, which will account for a fast speed, the ship is to undertake the first sea trials before the end of this month.

This year, the capacity of the Tulcea shipyard has grown by some 100,000 t/h, being also equipped with a new 100-ton tugboat, the first in a series of ships being built by the shipyard. Being equipped with new engines, which will account for a fast speed, the ship is to undertake the first sea trials before the end of this month.

BIOLOGICAL... GLASS

The Institute of research and design for the glassware and fine earthenware industry has taken little time to produce glass fibers with diameters of 15 microns, used in hydrofuge insulation, then with 5- and 15-micron-thick fibers for plastic wrapping, and of late it has passed to the production of microfibers of under one micron for the textiles of filters in nuclear power stations, for microelectronics and medical uses. Lately, the enterprise manufactures filters turning the characteristics of artificial light into those of natural light (the light bulb takes over the properties of the sun). These filters retain the heat of luminous sources, microfibers of under one millimetre for dyestuff cleaning and heating and detoxicizing panels. At the same time special technologies have been developed for the production of foam glass an excellent thermal insulator and which insulates, as well as methods for obtaining non-conventional and biological porcelain for osseous implantations and transplants.

RAILROAD CONNECTION

A 25-km-long railroad line started to be built between Diogeni-Savesti-Duranceni, connecting the north-eastern part of Bessarabia (in north-eastern Romania) to the railroad network.

The new line requires the construction of over 100 bridges and two viaducts and the execution of 15 million cu.m. of earthwork. The railroad will provide for the annual transportation of some 45 million passenger-km and nearly three million passenger-km, contributing to the reduction of the present transport expenses.

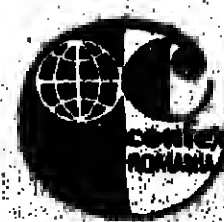
A BRIDGE OVER THE DANUBE

Near the Iron Gates II hydropower station, a bridge is now being built over the Danube. Planned to connect the Olt River with the Danube, it will link the Romanian coast with the Soviet Union.

CENTENNIAL HIGH SCHOOL

"Unirea" High School in Bucharest will open polychrome (polychrome) anniversary (polychrome) school until 1924. The school was founded in 1924 and was a communist school until 1924. The school was founded in 1924 and was a communist school until 1924. The school was founded in 1924 and was a communist school until 1924.

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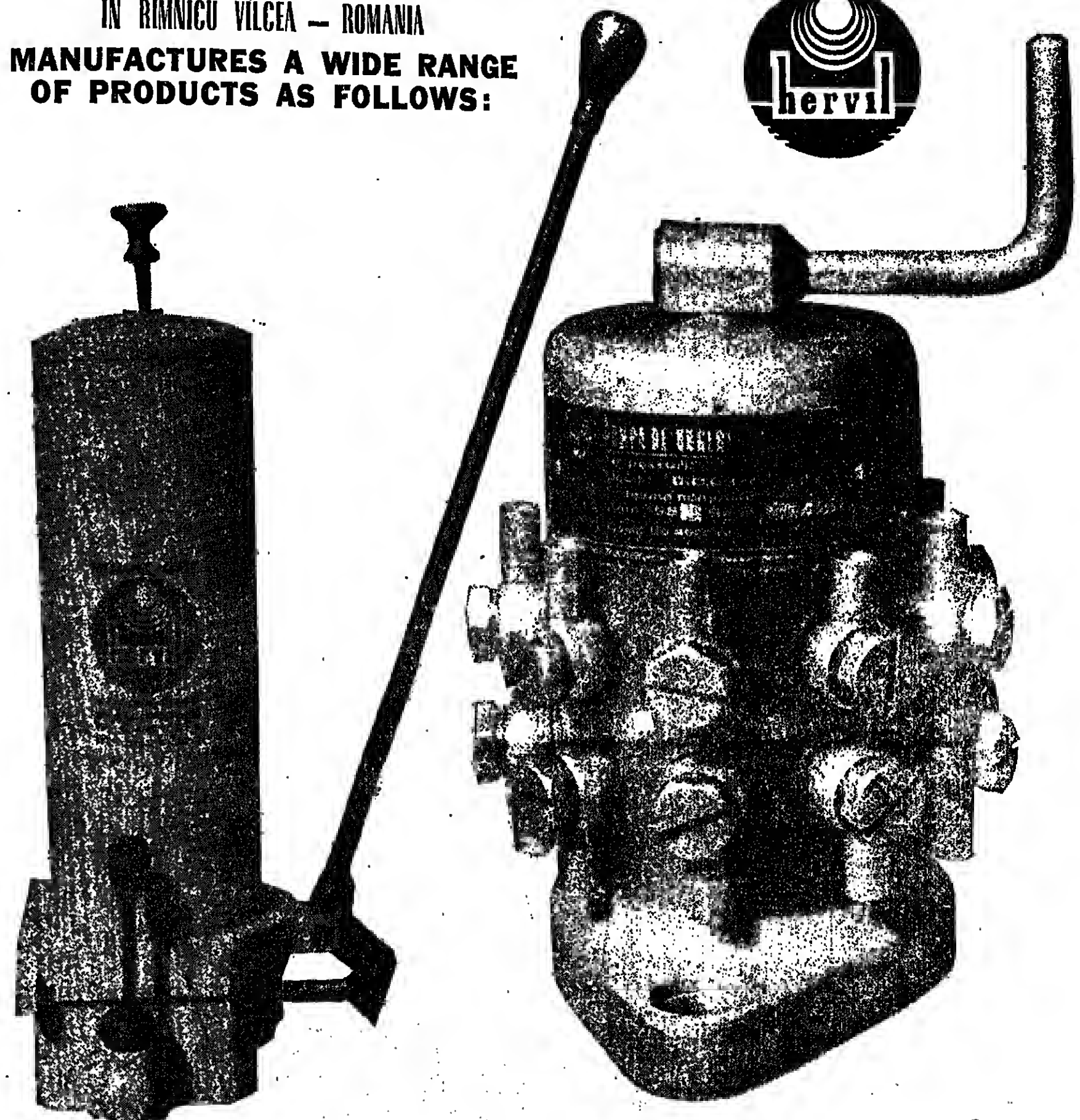
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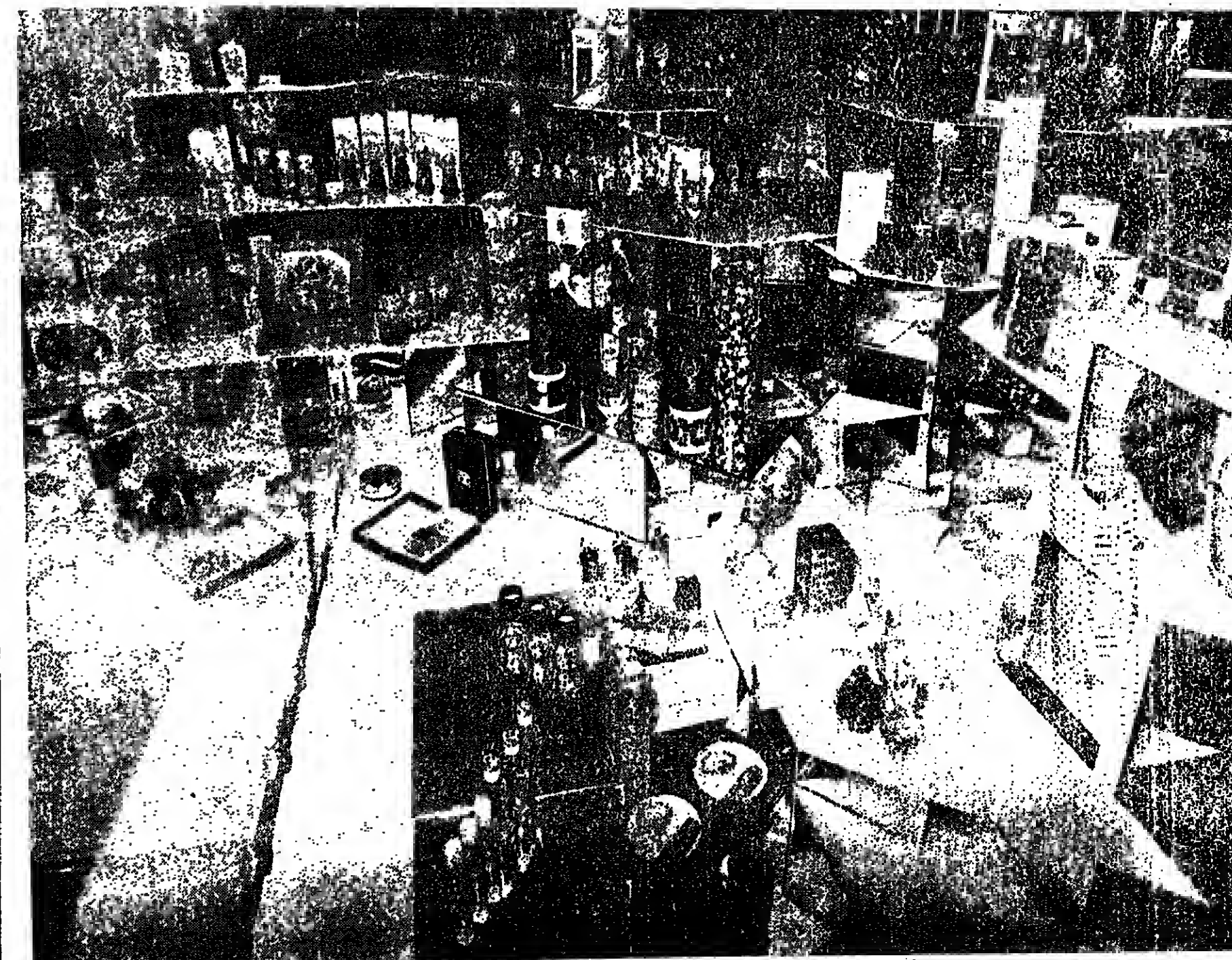
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— Measuring and control apparatuses, of which ampermetres, voltmeters, wattmeters, electric metres, flow-metres, steam-flow metres, logameters are delivered to Poland, Syria, Iraq, Pakistan, Sudan, the GDR and Czechoslovakia.

— Automation elements, equipment and installations for all the economic and social sectors.

We shall enumerate some subgroups of products: field and panel automation equipment, distribution and control electrical equipment, automated equipment and systems controlling technological processes in all economic branches, transmission and data processing equip-

ment, teletransmission and data processing equipment, machine tools, control equipment, automated testing equipment.

Also on offer are personal installations and equipment as well as turn-key deliveries. Increasing are the deliveries to countries such as the USSR, Egypt, the GDR, Czechoslovakia, Iran, Iraq, Bulgaria.

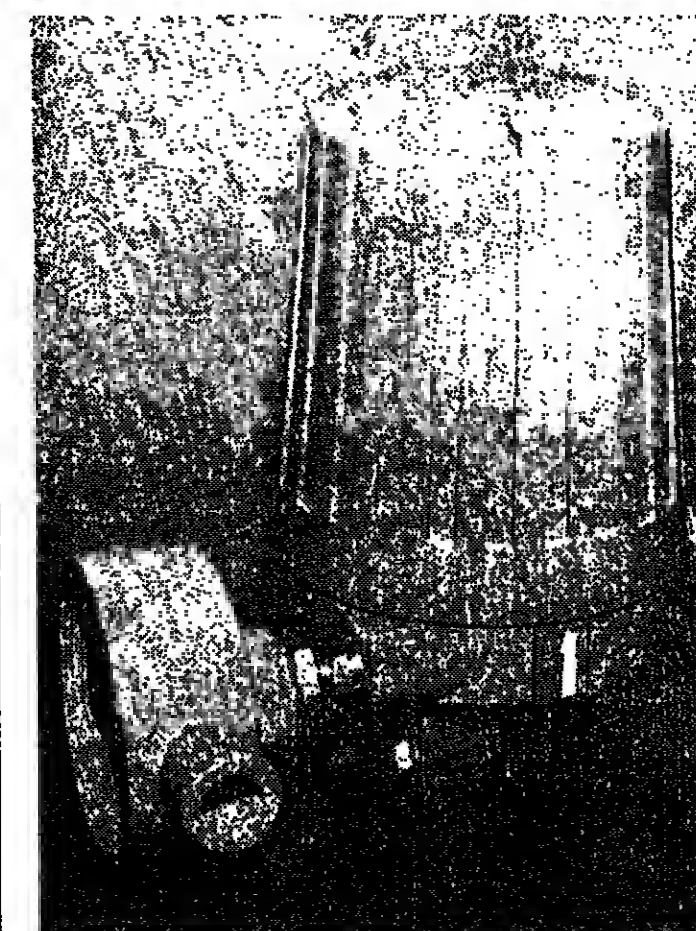
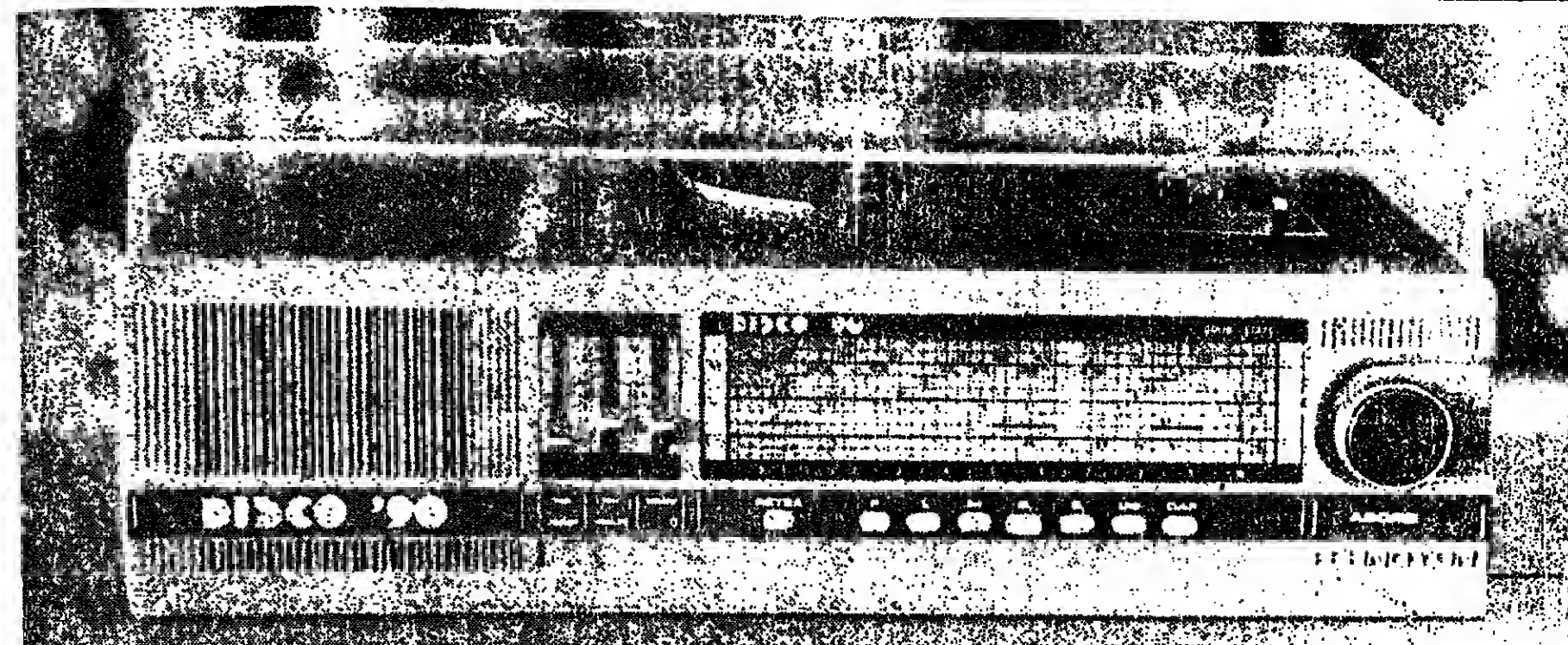
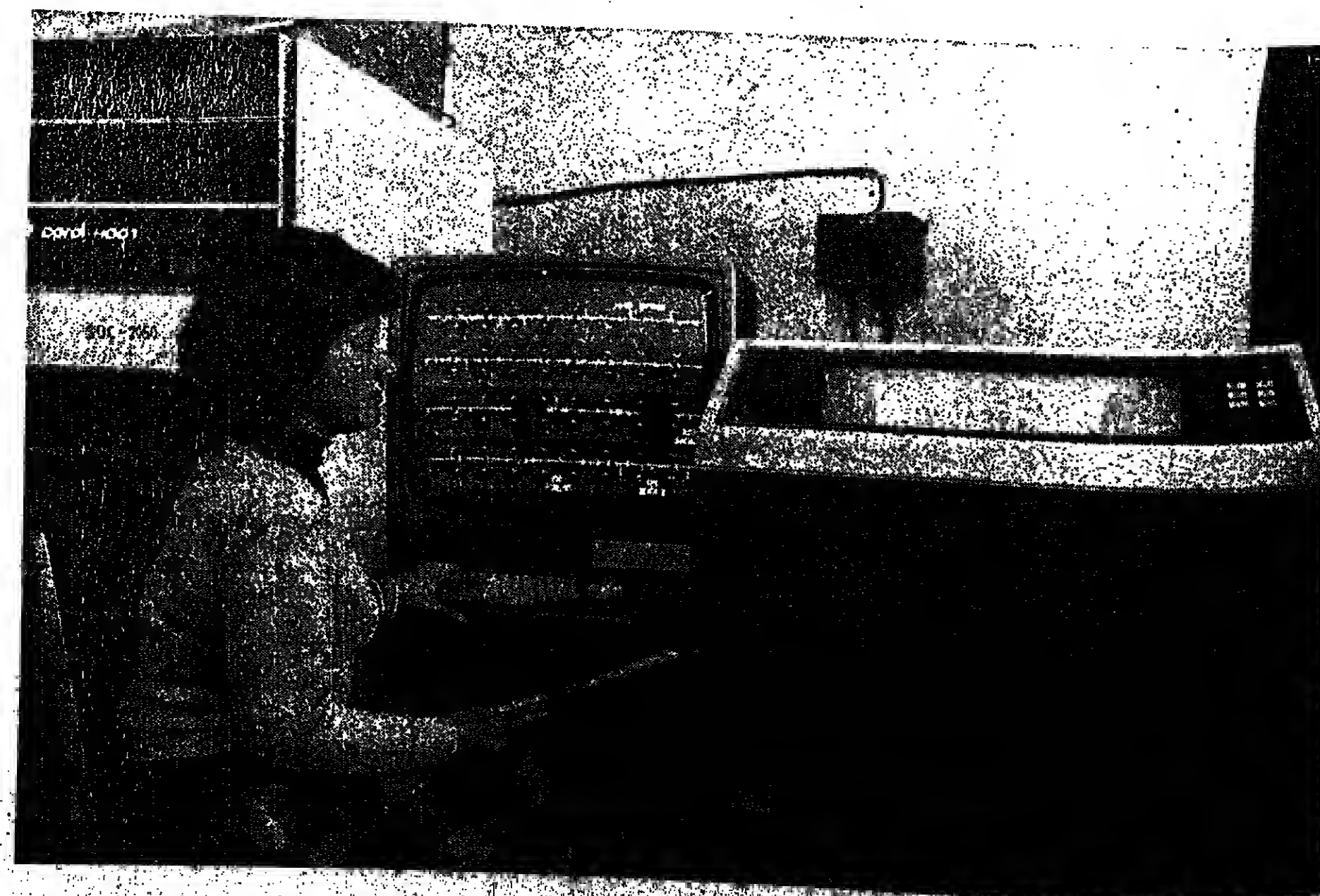
— Computer technology equipment such as: medium-capacity computers, minicomputers, microcomputers, personal computers, graphical systems, invoicing and bookkeeping machines, peripheral equipment. These products are exported to People's China, Czechoslovakia, the USSR, the GDR, Switzerland, Austria, West Germany, the USA.

The electronic components cover a wide range of diodes, transistors, integrated circuits, resistors, condensers, etc and are exported to Bulgaria, Czechoslovakia, the GDR, Poland, France, Italy, the United States etc.

Consumer goods such as radio receivers, radio cassette recorders and tv sets. These products are exported to countries such as West Germany, Britain, the Netherlands, Czechoslovakia, the GDR, the United States.

Also taking place through ICE ELECTRONUM are the export of licences and knowhow, the granting of technical assistance and software.

ELECTRONUM
BUCHAREST - ROMANIA



ICE ELECTRONUM imports a series of equipment, apparatuses, electronic components and various materials for the electronic industry and audio-video consumer goods.

An important partner in the export and import conducted by ICE ELECTRONUM is the Soviet Union.

ICE ELECTRONUM — Bucharest collaborates with the Soviet enterprises V/O ELECTRONORGTEHNICA, V/O STANKOIMPORT, V/O MASHPRIBORINTORG, V/O TECHMASHEXPORT, ENERGO MASHEXPORT, V/O TEHNOINTORG, V/O

Supplied to the USSR are adjustable drives for machine tools, automatic telephone exchanges, computer technology, while that country exports to Romania electronic components, technological equip-

ment for the electronic industry, computer technology and audio-video consumer goods.

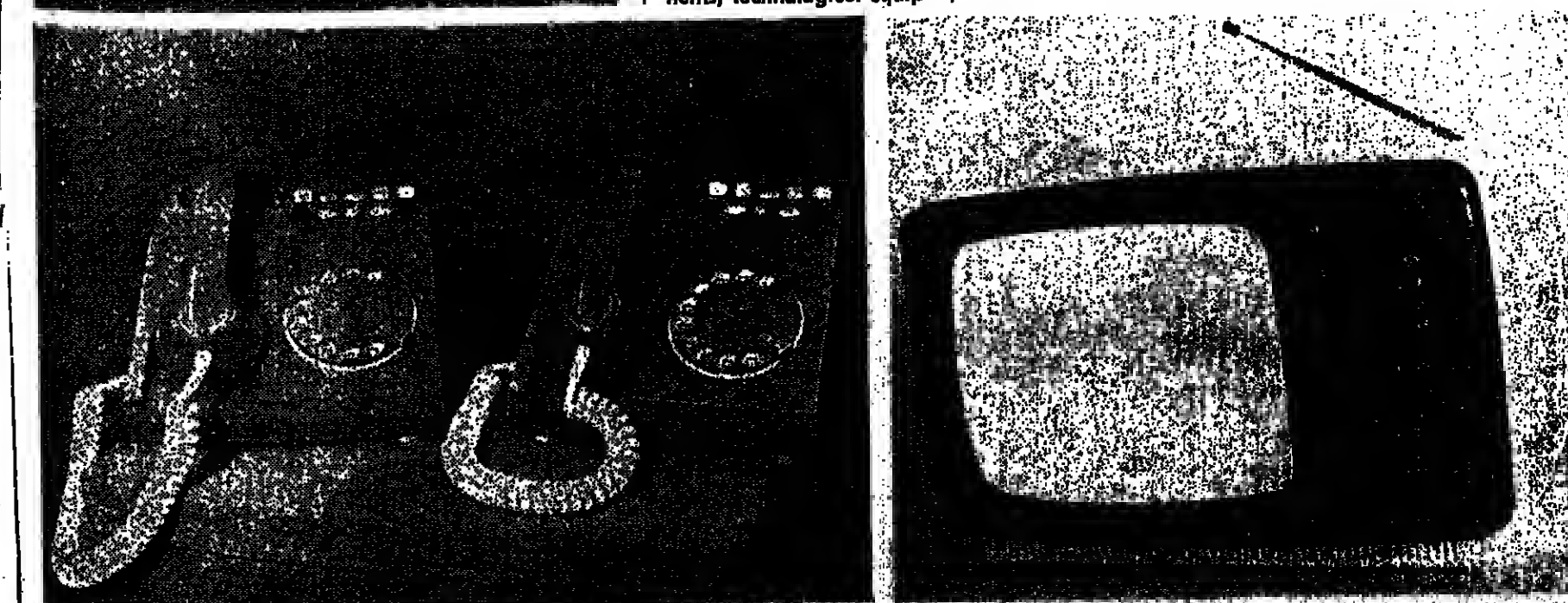
The collaboration with the Soviet foreign trade enterprises also accounts for the cooperation in production, that is Soviet electronic components are used in manufacturing electrical drives, computer technology equipment and automated telephone exchanges to be delivered to the USSR. At the same time very important is the ab-

servance of all delivery dates, especially as concerns the electronic components which are vital to the rhythmic realization of the equipment production plan.

According to annual mutual exchange protocol stipulations, the volume of the exchanges between ELECTRONUM and the Soviet foreign trade enterprises is set to grow every year.

For further information please contact our specialists.

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A VISIT TO THE MUSEUM AT VĂLENII DE MUNTE

The prolificity of certain authors is generally viewed with suspicion. And not without reason either. As is well known, grammarians are inconsistent and often worthless. Out of an abundant output, few writers are saved by one little or two. This is an historically verified and established fact. What is amazing is to find a man like Nicolae Iorga, who wrote a whole library by himself, in his lifetime! Not just a few shelves filled with rubbish, with second-rate volumes, but lots of titles, most of them outstanding. Such a feat, whatever angle you may look at it from, is simply miraculous. Nicolae's powers are limited and you find it hard to believe that a fellow being can produce an oeuvre distinguished by its vastness, depth, diversity and scope: over 10,000 titles. At least, that is what the knowledgeable commentators of

his works say. Without gratuitously going into ecstasies or lapsing into hagiography, I must plainly affirm that whenever I open a book signed by the peerless polyblast I am filled with humility: whence this uncommon capacity for work? Whence the inviolable curiosity, the phenomenal memory, the expressive force, the art or science of being a great man of his time? And after all how can a man be at the same time an historian and politician, a writer and journalist of excellence, a vigorous cultural catalyst and a guide of consciousness, an author of tremendous eloquence, a soul ardently dedicated to his people and a visionary patriot, a founder of publications, an academician and an energetic professor — briefly a personality such as a nation boasts only once or twice to a century?

"A MAN WHO WAS"

I know from experience that an approach to the universe of Iorga's oeuvre is not at all easy. That is why I have ceased to imagine that going once again to Vălenii de Munte I shall find a more direct path to his labyrinthine world of mysteries, of "purly and alignt" as a great Romanian poet, Ion Barbu, his contemporary, would put it. I know it, but here I am, going again to that place where he spent the last thirty years of his life. His former house was declared a memorial, and the inauguration took place in November 1965, in the context of a numerous and significant cultural opening. Naturally I am not going by carriage, as he did the first time, but by train, which takes me in about one and a half hours from Ploiești to that locality in the Teleajen Valley. Certainly the old-time atmosphere is gone. The beam houses, nicely whitewashed and covered with small, tight shingles, have become a rarity. Vălenii de Munte has the status of a town nowadays. The lapse of civilization is visible not only in its architecture but also in its economy, social decay and mentality. The road taking me from the railway station to Iorga's house is obviously no longer a "dusty road" but a thoroughfare on which commuter buses pass and young mothers push their prams. At the end of the street a bust of the scholar welcomes me with the well-known ecopical frown. The building stands on the right side of the crossroads. Damaged by the 1977 earthquake, the house went through some repairs but it still preserves its original shape, its traditional architecture. The front doors are filled into massive sculpted wood arches. A wide verandah like scholar's jargon. The weathered wooden terrace, as I know it from pictures, looks south, in keeping with tradition. Twelve wooden pillars, sculpted capitals, resembling fish-scale tiled roof. In the basement a cellar whose walls are made of living boulders like the entire stone-side wall.

A flight of wood stairs lead to the study of the great historian, who was a member of countless foreign academies and scientific societies. On his desk I can see a calendar which has an historical significance for the Romanians, opened at November 10, 1910, the day when he had to leave the house because of the earthquake. A few days later, on November 27, the professor was to be shot by Hitler's agents in Romania, on the skirts of a forest near Ploiești town. The horrors of history! Obviously, many of his

belongings were preserved: the furniture, the books, the newspaper and magazine collections, the paintings, even the pen and inkpot — virtually everything in his memorial house — are genuine. Everything is in its place: history is only the man who used to animate the place, inaudibly filling pages with his nervous handwriting. And also, missing in his good wife, Ecaterina, in the bedroom, the family pictures, the embroidered towels and the icons suggest a fruitful protective marriage. Two drawing rooms — the scholar's and his wife's — round off the ambience of the house. Portraits, works of art, bibelots and lithographs, stamps and pain-



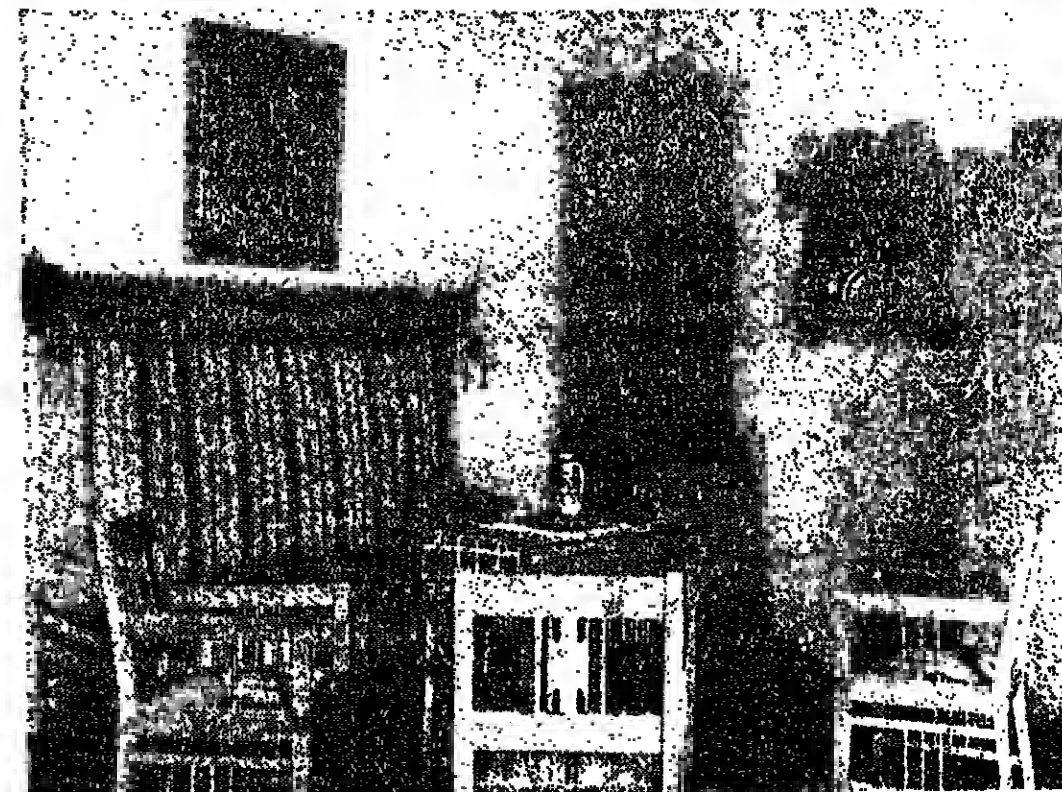
tings (two of them nurtured by our classic painter Nicolae Grigorescu: Shepherdess with Child and Apple Blossoms) and books, lots of books (could one con-

ceive of such a house deprived of books packed shelves?); padded furniture — everything is there to revive a time now part of history.

THE PEERLESS TOILER

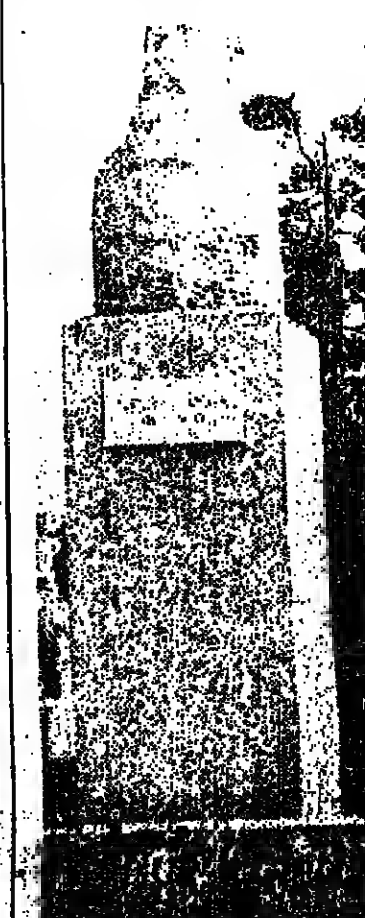
A time of paralytic struggles and aspirations. A time of national dedication and creative sacrifice. A time of energetic unrelenting, of victories and setbacks. Nicolae Iorga, who came from this land, a town where he was born in 1871 and whose name is also linked to our national poet Mihai Eminescu, made Vălenii de Munte a focus of culture. The settlement hosted for some time a famous people's university attended by numerous foreign guests, and a printing house which brought out pamphlets, calendars, books and periodicals. Thousands of newspaper articles and genres of books were written in this house. Illustrious personalities of the scientific and literary life, both Romanian and foreign, met here. Thanks to Iorga, Vălenii de Munte became part of history. He who like no one else had roved through every corner of the Romanian land and authored numerous travel books made the small locality in the Frabova Valley a focus of cultural activism.

The scholar's many-sided personality laid its seal on the destiny of the provincial town. The memorial house preserves something of the being of the man who patriotically spent all his energies in behalf of his national destiny. The house of Vălenii de Munte shows the way he was with the profound awareness of the native values, solid with the tradition assumed in its essential data, full of respect for the lofty aspirations after enlightenment and culture. His unbridled energy material-



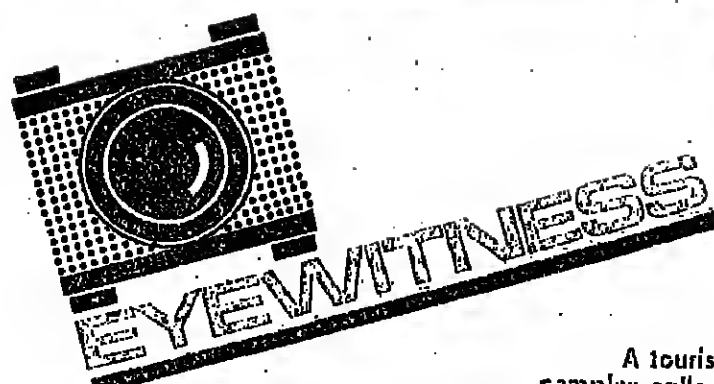
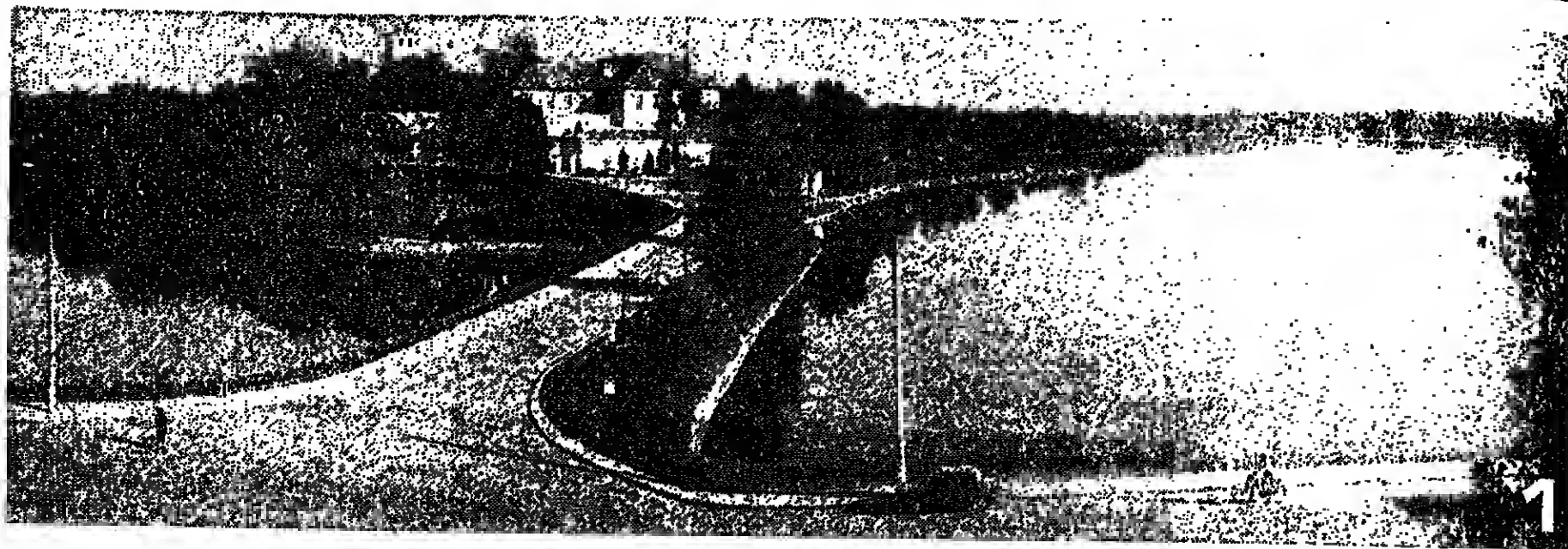
Photos: top right — portrait of the great scholar Nicolae Iorga; above — view of a room in the museum-house at Vălenii de Munte; below — the Nicolae Iorga memorial house which, through the scholar's tireless efforts, became a true cultural establishment; far right — the historian's bust before the entrance.

ember 1965, in the context of a numerous and significant cultural opening. Naturally I am not going by carriage, as he did the first time, but by train, which takes me in about one and a half hours from Ploiești to that locality in the Teleajen Valley. Certainly the old-time atmosphere is gone. The beam houses, nicely whitewashed and covered with small, tight shingles, have become a rarity. Vălenii de Munte has the status of a town nowadays. The lapse of civilization is visible not only in its architecture but also in its economy, social decay and mentality. The road taking me from the railway station to Iorga's house is obviously no longer a "dusty road" but a thoroughfare on which commuter buses pass and young mothers push their prams. At the end of the street a bust of the scholar welcomes me with the well-known ecopical frown. The building stands on the right side of the crossroads. Damaged by the 1977 earthquake, the house went through some repairs but it still preserves its original shape, its traditional architecture. The front doors are filled into massive sculpted wood arches. A wide verandah like scholar's jargon. The weathered wooden terrace, as I know it from pictures, looks south, in keeping with tradition. Twelve wooden pillars, sculpted capitals, resembling fish-scale tiled roof. In the basement a cellar whose walls are made of living boulders like the entire stone-side wall.



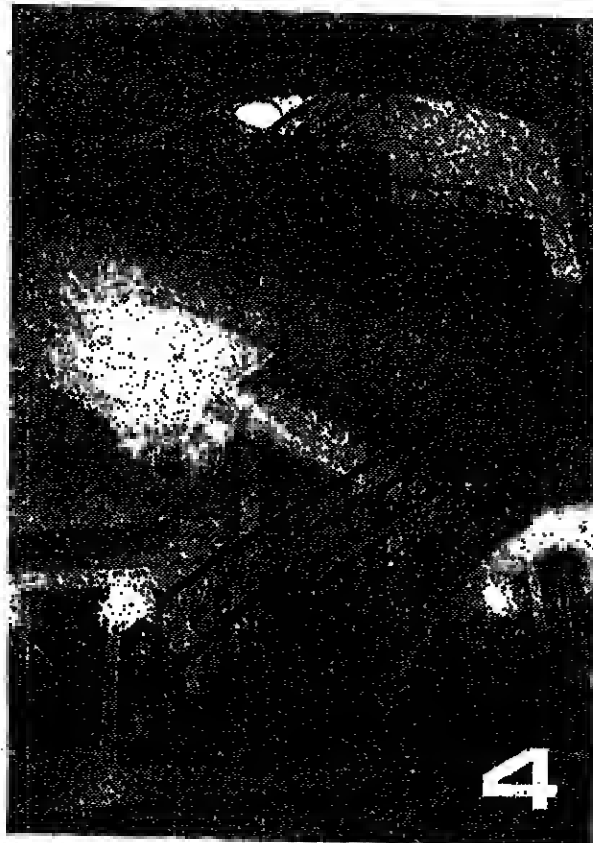
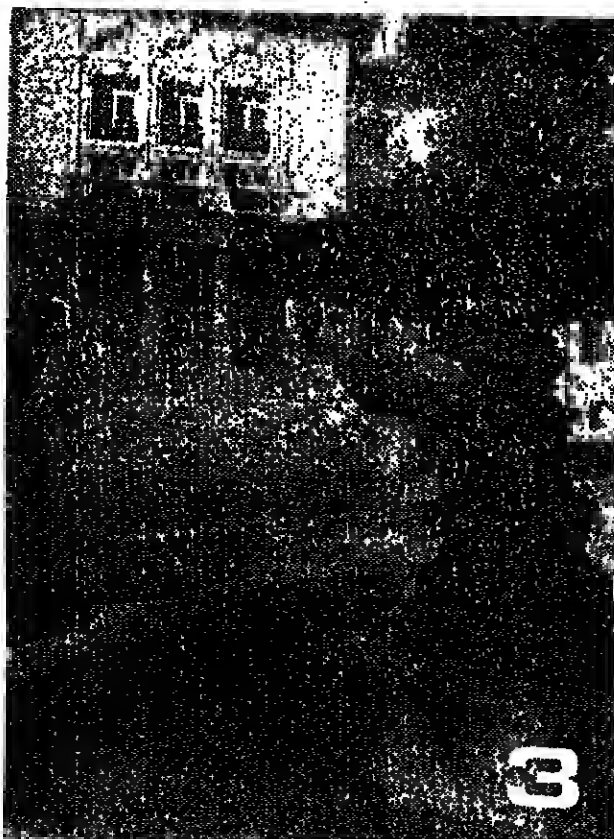
Romanians came, in the country's future that he died too, his great hope to the Romanian people's tomorrow did not abandon him even in his last physical moments. Going to Vălenii de Munte thus means taking a lesson in historical dignity, in basic patriotism. There is preserved the shadow of a "man who was" as the four volumes he devoted to his own life part in with the country's history. The house and the town, Vălenii de Munte, are a memorial to the world, a place where a man, a scholar, a writer, a patriot, a visionary, a founder of publications, an academician and an energetic professor, by his thinking and action, is still present today.

VLADIMIR DRESCU



A tourist complex called Lebăda has recently been opened at Bucharest's gateway leading to the Black Sea coast, on Pantelimon island. After several years of hard work, architects and builders created an architectural unique putting to advantage the remarkable natural setting and enriching the dowry of Bucharest tourism, a major tourist and urban landmark in Romania's modern capital city.

- 1 Pantelimon Island hosting Lebăda tourist complex, the lake and the new highway leading to the Black Sea shore. In summer, water sports can be practiced on the lake.
- 2 From the high tower, a wonderful panorama of the island and of Bucharest opens before one's eyes. The tower has been scrupulously and accurately restored, just like all historical vestiges on the island.
- 3 This unique fountain seems to have always stood here, in front of the central building of the complex. Actually, at a suggestion of the Bucharest Municipality History Museum, it was brought here from an area subject to territory planning and restored with the help of experts of the Fine Artists' Association.
- 4 Staircase in the lobby leading to the restaurant of the complex. The construction materials used and the quality of execution avoided the depreciation specific to modern, industrially built hotels.



- 5 Elegance and refinement characterize the interior decoration of the restaurant's several saloons.
 - 6 Living-room in the hotel's suite. The complex provides 250 accommodations in one- and two-bed rooms and in a suite, all of them fitted with telephone and closed-circuit TV.
- The rooms display a wide variety of interior decoration formulas. The carpentry, furniture and carpets were manufactured by handcraft cooperatives in the country, according to models specially conceived for the complex by the authors of its design.
- The Hotels and Restaurants Tourism Enterprise in Bucharest, the author and end user of the investment, headed by director general George Popa and deputy director Constantin Dorosescu, enriched the tourist base of the capital with this exceptional unit.
- R. MIRCEA
Photos: M. HUREK



CLASSIFICATIONS

- Romanian Daniela Silivaş — declared, as we informed you in our last issue, the world's best woman gymnast by the International Federation — was also declared the best sportswoman in the Balkans, in the wake of a poll conducted by the BTA news agency, which took into consideration all sports disciplines.
- Five Romanian sportswomen are rated among the world's top ten swimmers of 1983 by the Sport Echo newspaper in Berlin. The standings also include Olympic silver medalist Nicolă Lung is second in the 400 m medley (with a time of 4:35"18/100) and third in the 200 m medley (with 2:11"33/100). Tamara Costă, who ranks fourth in the 800 m freestyle (21'00"/100). Also fourth is Elena Iarnă in 300 m butterfly (2'00"73/100). The standings also include Ana Paărăscu who holds the seventh spot in the 100 m backstroke (1'02"35/100) and ninth-placed Livia Copariu in the 100 m freestyle (35"30/100).

FOOTBALL ROUNDUP

The first half of the national A division football championship has wound up. Dinamo Bucharest lead the autumn season standings with 33 points from 17 games (just one draw with runners-up Steaua Bucharest) and an exceptional goal average: 32-18. Steaua are level on points with Dinamo but they have only scored 62 goals and conceded 15. The goal-scoring effectiveness of these five teams' players was confined in the last two rounds when Dinamo inflicted a 7-1 away defeat on Farel Constanța and went on to beat Oțelul Galați 6-3 at home, while Steaua thrashed Corvinul Hunedoara 11-0 at home, and won 4-1 their away match against ASA Tîrgu Mureș. Another Bucharest club, Victoria, are third in the table with 23 points.

Therefore the top three places are held by the three teams who qualified for the quarter-finals of the European football club competitions, which means that their domestic performance is matched by excellent results in Europe. As a matter of fact, this is the first time ever when three Romanian teams qualify for the spring season of the major European club competitions, a record which is not easy to attain. It should be mentioned that only 24 teams from 13 countries have remained in the hunt for the three European club trophies. The largest number of teams come from Italy and West Germany — four each, followed by Romania and Spain, with three each. Two teams are from the Netherlands while the others are from Belgium, Bulgaria, Denmark, France, the GDR, Scotland, Sweden, Turkey (one each). The third place, shared by Hungary in this classification is surely less honourable.

But let us take account of something else, too. Romania enlisted four teams in the European soccer club tournaments: Steaua, Dinamo, Victoria and Oțelul Galați, of which three managed to qualify for the quarter-finals. Therefore a qualifying rate of 75 per cent. (Dropped out in the first round of the UEFA Cup, Oțelul Galați can console themselves with the thought of having inflicted a defeat upon Juventus of Turin, the only team which won all the three European trophies along the years). The Italian register a qualifying rate of 60 per cent (four teams out of six) and they are followed by the Spaniards with 60 per cent (three out of five). Lower in the standings are West Germany with 57 per cent, the Netherlands with 50 per cent, Denmark and Turkey with 33 per cent, France, the GDR and Bulgaria with 25 per cent, Scotland and Sweden with 20 per cent, Belgium with 16.6 per cent. Two soccer "pavars" — the USSR and Portugal — failed to reach the quarter final stage of any of the three tournaments.

The qualification of Victoria lifted Romania from 18th in which place in UEFA's excellent standings which take into consideration the results scored by each country over the last five years in the European cups.

This remarkable shape of the Romanian club teams in their international play-offs was doubtless by the excellent performance of the national squad in the World Cup qualifying matches. Romania won two victories in as many games, defeating Bulgaria 2-1 at Sofia (later on Bulgaria managed to score a sensational 1-0 away draw against Denmark) and Greece 2-0, in Bucharest.

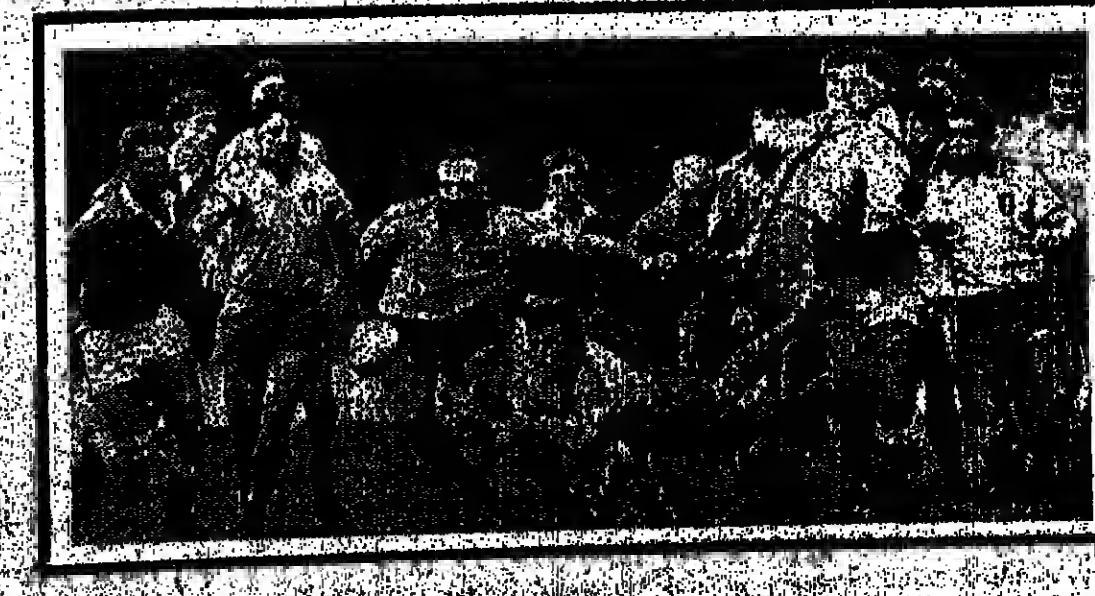
The evolution of the Romanian squad and club teams struck a resounding echo. Let us mention only that the Italian Gazzetta dello Sport made up the 1983 European soccer team including players registered with foreign clubs. Featuring among the 11 players are two Romanians: Milito and Milito. As a matter of fact Milito (from Dinamo), who is probably the best Romanian player in the autumn season, heads the goalkeepers' chart with 20 goals, followed by Ilie (Steaua) with 19 goals. Coray (Victoria) also holds 20 goals. Three players from the three club teams qualified for the higher stages of the European cups. Could it be a coincidence?



EUROPEAN COMPETITIONS

HANDBALL. The six Romanian teams competing for the European handball club trophies (men and women) won the games they played last weekend. The most dramatic victories were scored by the women's teams in the European Champions' Cup. Mureș Tîrgu Mureș defeated Arad 3-1, Istanbul 3-1 at home; in the Cupwinners Cup, Știința Baia Mare managed a 3-0 away win against İzmir Heliçayir of Turkey. In the men's side of the competition, the best result was registered by Steaua Bucharest, 25-21 away winners against L. F. Kolding (Denmark) in the European Champions' Cup. The other Romanian teams, playing at home, scored the following results: in the Cupwinners Cup, Dinamo Bucharest 22-18 — TSKA Moscow 17-10 (the IFF Cup); R. C. Miorca Balta Nea 33-28 — Hapariljardar (Iceland) 31, and Politehnica Timișoara 11-10 — TSV St. Gallen (Switzerland) 10.

VOLLEYBALL. The Universitatea Cluj Cluj women's volleyball team, Romania's champions, went through the second round of the European Champions' Cup, with a triumphal 3-0 win over Post-S. V. Vienna, in the second leg. Steaua Bucharest, Romania's men's volleyball champions, also won their game against Hapoel Be'er Sheva (Israel) 3-1, thus qualifying for the semifinal round in the European Champions' Cup.



A GREAT VICTORY

Romania beat Wales 15-0 in their rugby union international at Arms Park in Cardiff on Sunday, December 10. It was a splendid win, the first away win ever claimed by the Romanians against one of the great powers of world rugby union, the bronze medalists of the 1981 world championships and 1981 world winners (with France) at the Five Nations Tournament. The Romanian players dominated the game from the outset and moved ahead in the 13th minute when Iulian scored from a penalty kick. Six minutes later Gh. Ion ended a team effort with a try which was converted by the same Iulian. In the 34th minute the Welsh made it 3-3 through a Thorburn penalty, which was the halftime score. Shortly after the interval, the hosts squallied through Deane's try, converted by Thorburn. The Welshmen began to attack in waves but the Romanians gradually moved the game into the opponents' half with Iulian scoring two penalties in the 67th and 69th minutes. The score was 15-3 for Romania and it remained so until the final whistle. Commentator Clon Thomas wrote in Sunday Observer that Romania's victory had been considered by many as almost impossible, taking into account the Romanian rugby union players' prolonged lack of form. But now that moment has been overcome and, as Jonathan Davies, the Welsh captain said, the Romanians lived up to the shape which saw them into the world of great rugby union, putting all their heart into the game most probably aspiring after loftier ideals. An idea shared by Glyn Haddock, a connoisseur of Romanian rugby union, who declared that a new Romanian team was born at Arms Park showing it was a power of world rugby union.

PHILOSOPHY AND SCIENCE

We live in an age when scientists often "escape" from their strictly specialized fields, with surprising profitable results in other related domains or in apparent contradiction with their training. Today we cannot conceive an in-depth research of phenomena just through a vertical, narrow investigation lacking comprehension or prospects in a domain of science. A proof of that are the collectivities organized on multidisciplinary criteria. Everything is studied in relations of interdependence with close or contrasting phenomena, in compulsory connections imposed by experience. In the interview published on this page we follow the destiny of such a plurivalent destiny in science.

PEOPLE & IDEAS

Professor dr. Sorin Comaresan is a graduate of the Faculty of Medicine in Bucharest. But his options directed him toward physics and philosophy which made him return to studying for a new university affiliation — the diploma of the Chemistry-Physics Faculty in Cluj-Napoca. Now he is the head of an interdisciplinary research collectivity at Fundatia Hospital in Bucharest and enjoys world renown as the author of an effect bearing his name. The collectivity of teachers and researchers also recommended him as visiting professor at the University of California, in Berkeley, at the University of Miami, Florida, as scientific collaborator at the Nuclear Physics Centre of Buenos Aires University and research consultant director at the Interdisciplinary Technology Company, San Francisco, California.

"Paradoxically," I said, "Professor Sorin Comaresan is known to the Romanian public especially as an author of catholics and philosophy studies and to a less extent, for his merits recommending him as a scientist of world renown, as the discoverer of a phenomenon bearing his name. I found out, at the same time, that in your relations with the press you engage with pleasure in a dialogue about questions of life, but become more reserved when someone enters your physics and biology lab. Let us therefore remain in the strict domain of epistemology about art and philosophy."

"I shall begin with an observation: you used a strange word without knowing that it belonged to my sentimental diary. Years ago, in Buenos Aires, I addressed in a similar way the famous writer Luis Jorge Borges, who was inaccessible beyond the circle of friends assuring him that I wanted just an exchange of opinions on life questions. That was enough to render his inner pleasant and receive his unreserved approval."

"I have a question for you: constant and lasting meditation on philosophy topics. What potential resources determined such a winding evolution?"

"Getting out of the system (the expression belongs to Constantin Noe) was for me an older preoccupation. It isn't simple and easy to leave a secure area for one when you can be accused of nihilism and dilettantism. But nature is an incessant of evolution. Getting out of the system took place as a result of scientific frustrations. When my works devoted to the interaction between visible light and various chemical molecules entered on experimental dissonance, I had five extremely unsuccessful years. I understood that I could cross this "desert" if I did not try something else. Then I started to meditate on science as science, not through the narrow lenses of biophysics and biochemistry I had had exclusively in view."

"In one of your essays, you talk about an older passion for humanistic questions."

out, independently reproduced in labs abroad."

"Those who appreciate and admire your works have different opinions."

"I know myself better. I am not a genius, just a lucky man, although I wish it were the other way round. In delving my scientific and intellectual profile, I made no contact with the depth of the work. Einstein elaborated his famous theory after having gathered many previous data. And Poincaré was close to it, but he lacked the necessary intuition to connect the invariance he had discovered to the structure of the electromagnetic field. For Einstein the concept of time fertilized the contemporary imagination, but he made a fundamental mistake, by not considering the probable character of quantum mechanics. Bohr still reserves many surprises."

"Which personalities of today's world have marked your activity and intellectual optimism?"

"I shall mention Szant-Ogry, the discoverer of vitamin C, whom I met at the quantum mechanics seminars in Florida, Hans Bethe, the creator of the atom concept, whose monumental style inspired me, and O. N. Yong, who discovered the violation of parity in theoretical physics, and who revealed to me an unknown aspect of his experimental results. But the men of whom I have the most sensitive memories, besides Borges, remain Constantin Noe."

IN VITRO COFFEE PLANTATIONS

● Researchers at the Bucharest Institute of Biological Sciences have cultivated in vitro tissues extracted from the leaves, stalks and immature grains of the coffee plant in special culture media and developed a cell mass whole, whole dried, roasted and ground, has the same caffeine content and taste as the coffee classically obtained from green coffee beans. In the countries whose climate is unfavourable to coffee plantations this technology becomes important because it ensures an unlimited production of coffee "harvested" in laboratory and subsequently in industrial conditions.

SPECIALIZED MICROORGANISMS

● After several years of selections and experiments, the Romanian specialists have developed 20 populations of microorganisms highly qualified for producing methane. Their efficiency is as high as 100 per cent and their activity does not decrease in time. After the current laboratory pilot phase of establishing the optimum production parameters in the anaerobic bioreactor, the microorganisms which best metabolize carbon dioxide and hydrogen will soon enter the industrial phase.

COMPUTER GAMES

● The first Romanian cassette with electronic games on a monitor has already been put on sale. The 10-12 Victor Road JECCO shop in Bucharest makes demonstrations and sells computer games cassettes. An outcome of the researches made by the Institute of Computer Technology and Electronics in collaboration with the Industrial Central of Electronics and Computer Technology, the first lots of computers and monitors will be tested and introduced.

celebrated adage "publish or perish". I have published quite a lot but I have succeeded in surviving severely."

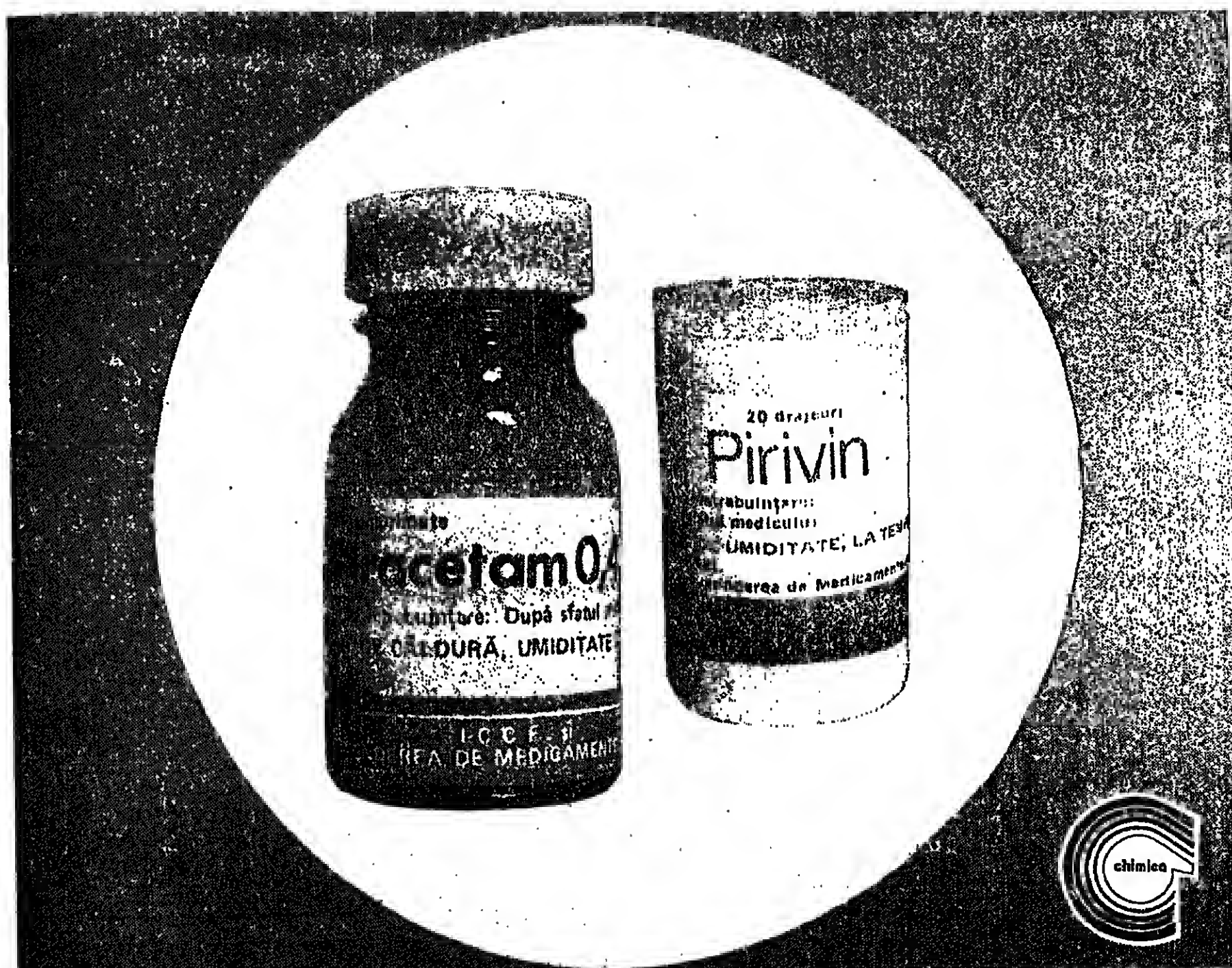
"Your philosophical meditation represents you in a new intellectual position, but they have secured you a distinct place in the consciousness of your compatriots. What does your concept of "metaphysics" essentially propose (it may be essential to a philosophical concept in the limited space of a magazine article)?"

"Indeed, you ask for the impossible. Philosophical writings or interpretations are part of the biographies of many scientists in the world today, especially those of physicists, biologists and mathematicians. With most of them, philosophical meditation appears as a derivative of their investigations in their respective fields of knowledge. I have tried to make the philosophy of science a complex evolution in the same sense of equivalence as art criticism. It is, in my view, a Noe-Lyso reversal which, by shifting some well-established relations, aims to throw new light on truth. The path has been used to create a general model of integrating the human traits of science, philosophy, art and literature."

"What is the present-day role of science in the development of philosophical meditation?"

"The role has become a commodity no one is interested in any longer. Not even philosophers. Plenty does not generate questions. It is just consumed. It is only the physicists that

CHIMICA



PIRACETAM

● PIRACETAM improves the cerebral biochemical processes which underlie cognitive activities (memorization, the elaboration of conditioned behaviour etc.) while enhancing the brain's resistance to various aggressions (acute food poisonings, hypoxias, electric shocks, traumas etc.). It has no central sedative or stimulative activity, does not work on the vegetative nervous system, is devoid of toxicity and has no contraindications.

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The ELECTROPUTERE

enterprises at Craiova, the seat of the country's manufacturers all the equipment installed in Romania for the transport and distribution of electricity, as well as the whole park of electric and Diesel-electric locomotives for the Romanian railways. Here are produced all power transformers with powers ranging between 25 and 2,000 kva and tensing up to 50 kV, high tension asynchronous motors with protection for the most diverse environments, meant for agriculture, the steel industry, metallurgy, mining, the whole range of medium and high-voltage apparatus up to 400 kV, dry transformers and complete transformer stations, 110 kV and 220 kV circuit breakers and Diesel electric locomotives ranging between 1,000 and 2,100 hp.

The transformers made at Electroputere are exported to People's China, Brazil, the USSR, Iran, and many other countries, while the locomotives built here travel on the railways of England, Yugoslavia, Greece, Poland, People's China and Bulgaria.



YOU CANNOT PRODUCE WELL UNLESS YOU CONTROL!

If, generally speaking, "man is the measure of all things" as Protagoras put it, we must stress that the quality of your products and the productivity of your labour are strictly conditioned by the use of MEASURING AND CONTROL APPARATUS.

The post- or in-process sizing of your products supplies you the information through which you can become EFFICIENT as a producer.

It is this efficiency (viz. quality, producti-

vity, competitiveness) that the Fine Mechanics Enterprise (IMF) of Bucharest has in mind when offering its beneficiaries:

- measuring and control apparatus for lengths, pressures, temperatures, discharges, times and speeds;

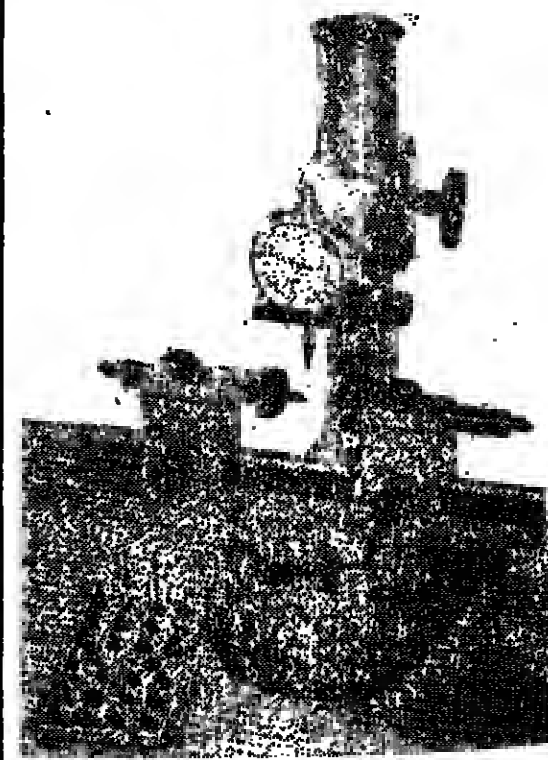
- special tools (diamond and sinter-carbide metal tools), holders, high-accuracy and fineness devices and dies, having a high degree of productivity and durability.



MEASURING AND DIMENSIONAL CONTROL APPARATUS AND INSTRUMENTS

- dial gauges ● bore dial gauges ● gear measuring instruments; ● threaded conic gauges for the oil industry.

- circular dial snap gauges ● gear pitch-error and gear-tooth-thickness measuring instruments ● reading ball-gauges; optical read-out devices and rules.



IN- AND POST-PROCESS SIZING GAUGES

They are built according to modern principles, with pneumatic inductive, piezoelectric transducers, whose signals are processed and displayed analogically or numerically in modular-type electronic units:

- pneumatic post-process sizing gauge - SUPERJET ● pneumatic post-process sizing gauge - ELSUPERJET ● post-process sizing gauge with electric contacts ● inductive electronic post-process sizing gauge ● roughness measuring post-process sizing gauge; smoothness measuring gauge (electronic levels).

- in-process sizing gauge for continuous exterior cylinder surfaces with one and two measuring points ● for continuous exterior surfaces and for continuous interior cylinder surfaces with two measuring points ● in-process sizing gauge for centerless grinding machines ● in-process sizing gauge for exterior diameters of narrow surfaces ● copying systems mounted on machine tools for processing through copying after a pattern.



Automation Elements AND MECHANISMS

- Programmers ● electromechanical impulse counters ● programme control for automatic washing machines ● discharge counters with oval wheels ● electromechanical tachographs for motor vehicles ● complex speed measuring installations for locomotives and subways.

FOR PRESSURE INDUSTRIAL CLOCK-TYPE APPARATUS, INSTALLATIONS AND TEMPERATURE CONTROL

This apparatus family includes pressure switches and thermostats. They are indispensable in the automation of starting and stopping installations using fluids whose temperature and pressure must be maintained within certain preadjusted limits. Pressure switches and thermostats are made by the Fine Mechanics Enterprise in a wide variety according to the pressure and type of media they are mounted on and the conditions of the environment.

REMEMBER THE



IMF TRADEMARK



SINTER-CARBIDE METAL PRODUCTS

The main groups of products bearing the "CARME-SIN" mark - which are the object of the Bucharest Fine Mechanics Enterprise's production programme - are the following: sinter-carbide metal broable tips and inserts for metal cutting; sinter-carbide metal inserts for mining tools; sinter-carbide metal inserts specific to the wood industry, building materials and extraction industry; products for drilling installations; dies for screws and nuts; dies for roll bearings; other types of products upon the foreign partners' demand.

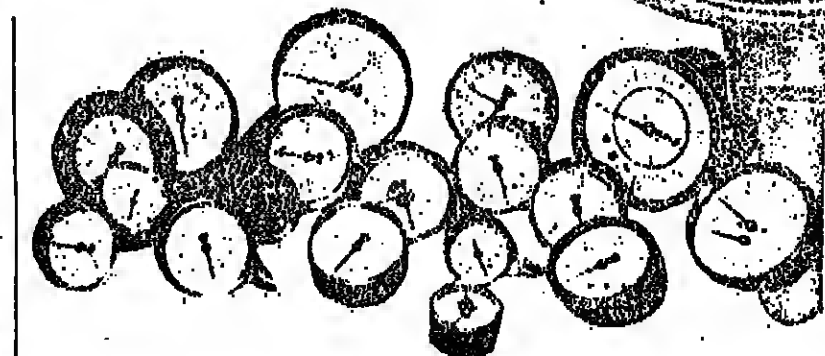
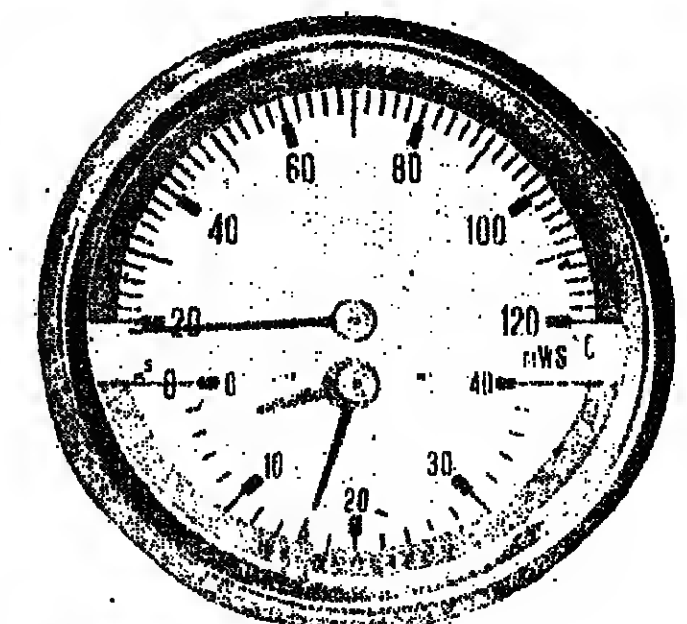
According to the concrete destination indicated by the end user, these products are executed out of the PKMG groups of carbide metal powder, after ISO international standards or according to other requirements specified in the order.

In order to increase the durability and performances of the sinter-carbide metal inserts, the method is applied of coating them with extra-hard layers of titanium carbide, giving the inserts an increased durability of up to 300 percent, as compared to the normal execution.



PRESSURE GAUGES

Through the great diversity resulting from constructive variants based on measuring limits, accuracy, diameter, connection and scale type, the Fine Mechanics Enterprise can satisfy the most exigent demands of its clients (standard pressure gauges or of special construction, upon demand). There are: ● general use industrial manometers ● vibration-proof manometers ● corrosion-proof manometers ● capsule-manometers ● double indication manometers ● manometers-thermometers.



DIAMOND TOOLS

The processing of ferrous and non-ferrous metals, of sinter-carbide metal, stone, concrete, ceramic and glass - through modern methods - calls for the use of diamond tools on an ever larger scale.

The manufacturing programme of this kind of tools is achieved at IMF on the basis of the licence purchased from WINTER firm of West Germany and is currently in full swing as a result of the growing demand. It comprises the following more important groups:

- diamond mills with metallic or resin-

ous binder of various shapes and sizes, with cubic boron nitride.

- diamond tools for construction-material processing
- diamond tools with galvanic binder
- honing diamond blades
- diamond pastes
- diamond tools for trimming and shaping abrasive stones
- chambering tools with extra-hard materials from diamond polycrystals or cubic boron nitride
- diamond drawing dies.

AND THE EXACT TIME

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